



FIELD KIT

Vermeer Corporation

Environmental
Pella, Iowa 50219 USA

FIELD CAMPAIGN KIT #: IK003633 Rev. 1 **DATE:** **RELEASED**
For Dealer Reference: Service Bulletin #: SVC2020-005 Rev. 1

Kit to Move Controller

CAMPAIGN TYPE:	Customer Choice/Enhancements
CAMPAIGN CATEGORY:	Kit and Bulletin

MACHINE/ ATTACHMENT MODEL(S):	SERIAL NUMBERS:		Kit version
	Included	Excluded	
BC1200XL	1001 – 3365 Tier 3 Engine	2364	IK01
BC1200XL	1001 – 3365 Tier 4 Engine	2364	IK02
BC1200XL	1001 – 3365 Gasoline Engine	2364	IK03

Purpose: This kit includes parts and instructions to move controller to the right front corner of machine.

Reason for revision: Part number of amber decal included in bill of material for IK01 has been updated.

Special tools and conditions:

- None

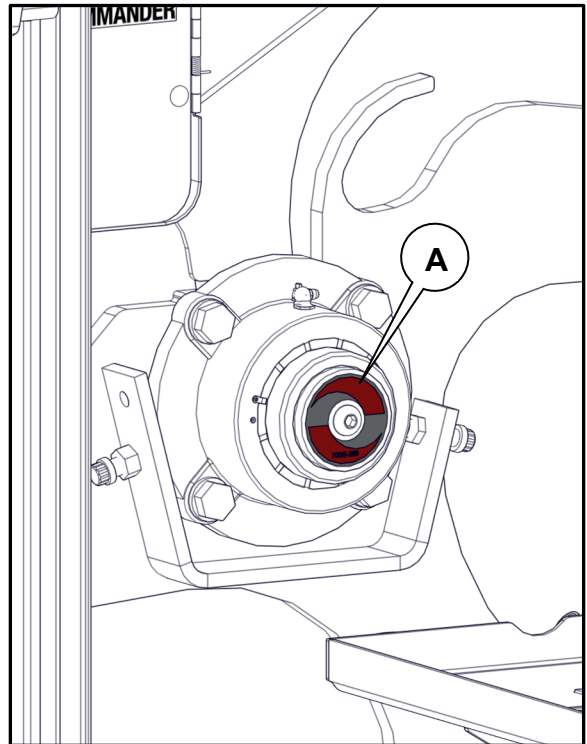


WARNING: Use the following shutdown procedure before attempting to do any of the work described in this kit.

1. Return *Upper Feed Control Bar* to top STOP position.
2. Move *Cutter Engage/Throttle Lever* to ENGAGED/LOW RPM position.
3. Wait for cutter drum to slow.
4. Move *Cutter Engage/Throttle Lever* to DISENGAGED/LOW RPM position.
5. If equipped, shut off remote control if in use.
6. Turn ignition key to OFF position.
7. Wait for cutter drum and belt to stop.

Notice: Cutter drum rotation can be checked by looking at the end of shaft (**A**) on left side of cutter wheel housing. The cutter drum will continue to turn for a short time after the engine has stopped.

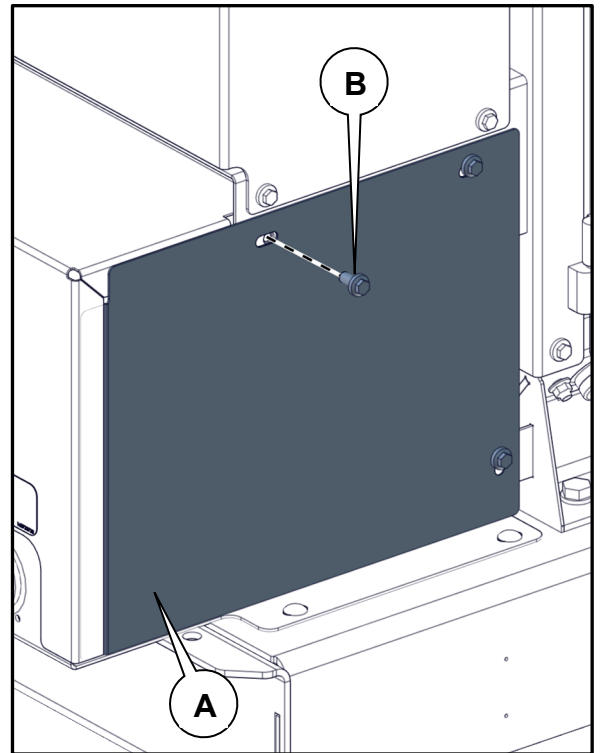
8. Remove ignition key.



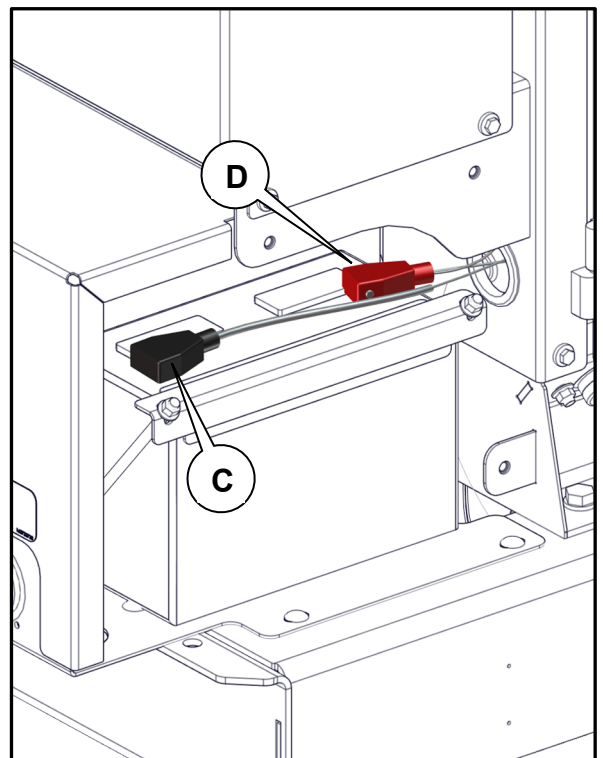
⇒ Unless indicated, new parts from kit have callouts with numbers. Callouts with letters indicate existing parts or general items.

PROCEDURE 1: Controller move (IK01, IK02, IK03)

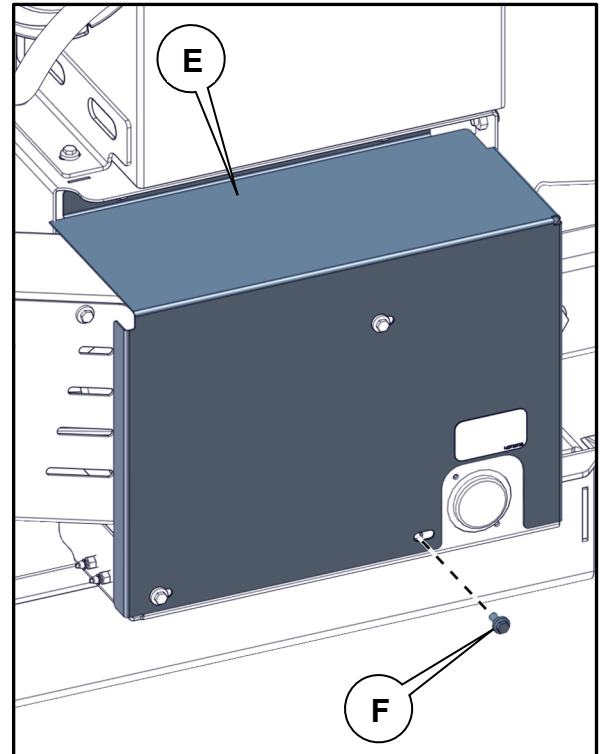
1. Remove and retain battery access panel (A) and hardware (B) securing panel to machine.



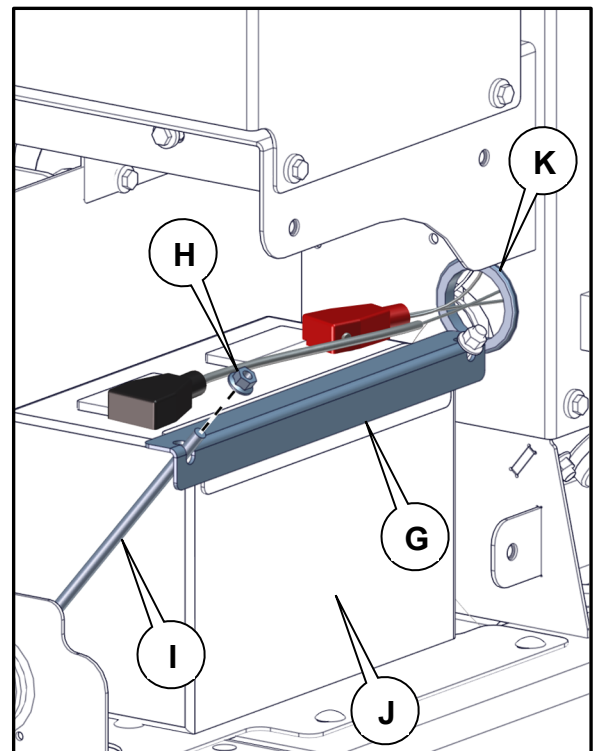
2. Remove negative (-) battery cable (C) from battery.
3. Remove positive (+) battery cable (D) from battery.



4. Remove and discard battery side cover **(E)** and mounting hardware **(F)**.



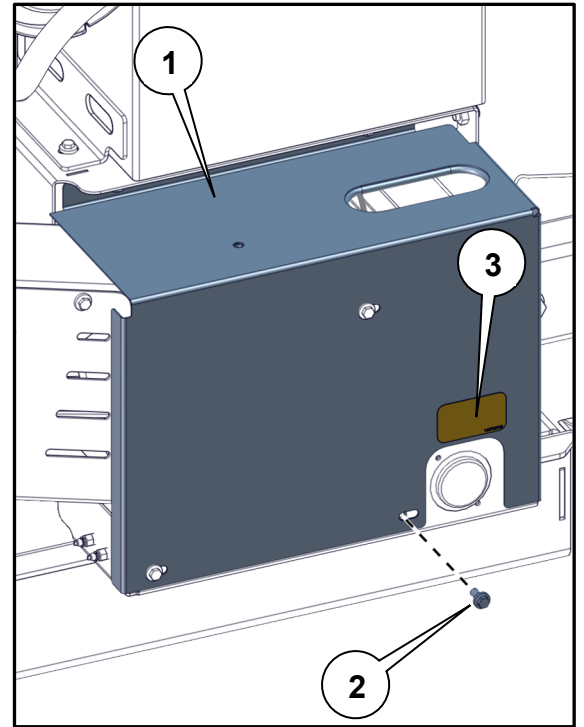
5. For machines with 110 hp Tier 3 engine, pull battery cables through hole on side of engine enclosure. **(IK01)**
6. Remove and retain battery retainer **(G)**, nuts **(H)** and battery rods **(I)**. Remove and retain battery **(J)**. **(IK01)**
7. Remove and discard grommet **(K)**. Use weld blankets or suitable covers to protect wiring and surrounding area. Use a suitable tool and enlarge hole to 2.5 in (63.5 mm) diameter.
8. Install new grommet **(8)** P/N 1865047 to enlarged hole. Install retained battery using retained battery retainer **(G)**, nuts **(H)** and battery rod **(I)**. Pull battery cables into battery compartment. **(IK01)**



9. Install new battery cover (1) P/N 163709704 using new screws (2) P/N 507612020.

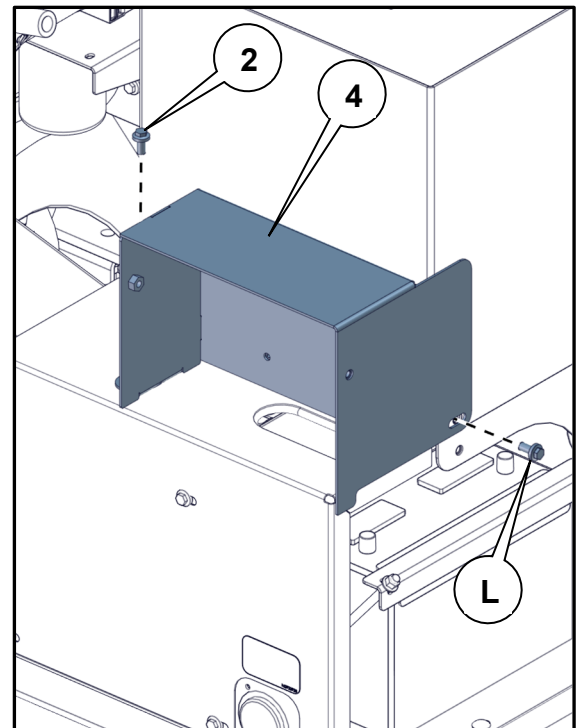
10. Install new reflector (3) to battery cover.

- (IK01) P/N 163811485 Tier 3 engine option (not shown)
- (IK02) P/N 308000149 Tier 4 engine option (not shown)
- (IK03) P/N 163733738 gasoline engine option

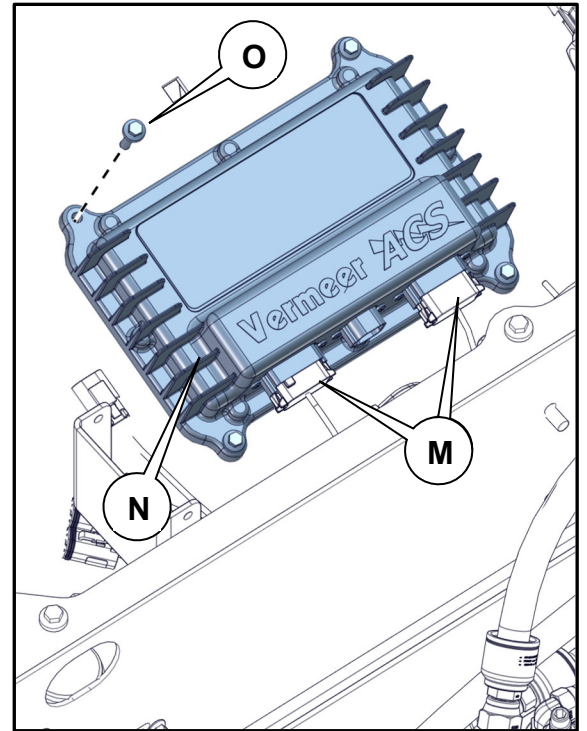


11. Remove and retain screw (L) from hydraulic tank.

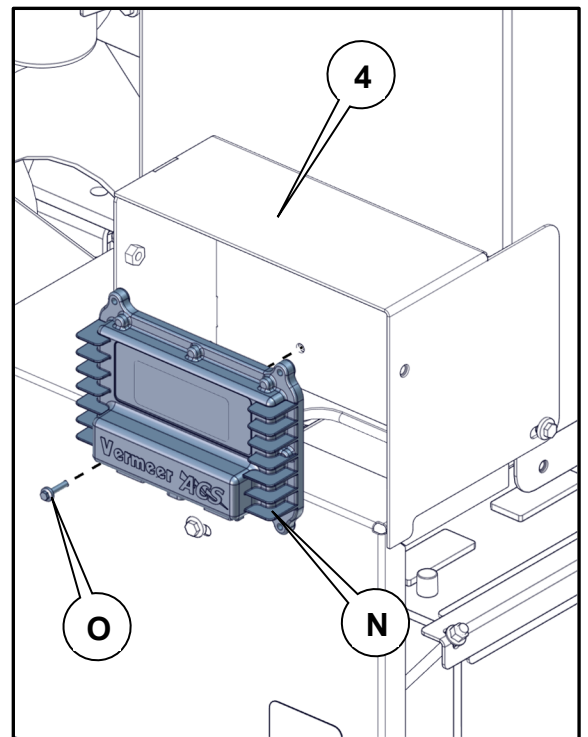
12. Install new controller box (4) using new screw (2) P/N 507612020 and retained screw (L).



13. Remove harness connections (**M**) from controller.
14. Remove and retain controller (**N**) and controller hardware (**O**) from infeed frame.
15. Remove and discard the front and rear harness from the machine. Note where harness is secured to machine with ny-ties to aid in installation of new harness assemblies. Retain hardware securing harness ground connections and electronic components.

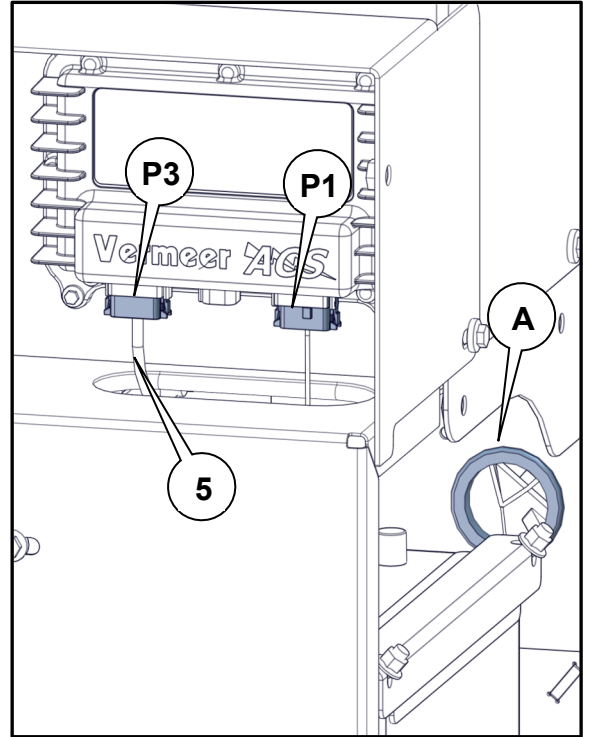


16. Install retained controller (**N**) to controller box (**4**) using retained hardware (**O**).

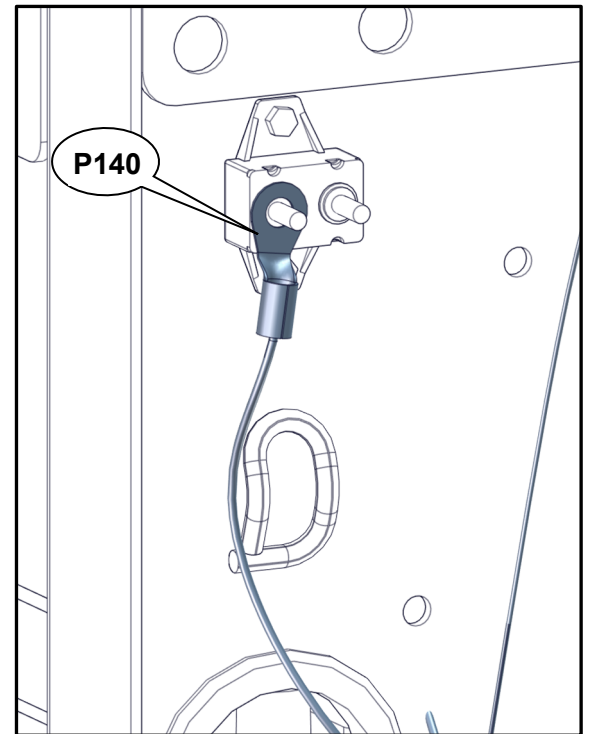


PROCEDURE 2: Front harness installation (IK03)

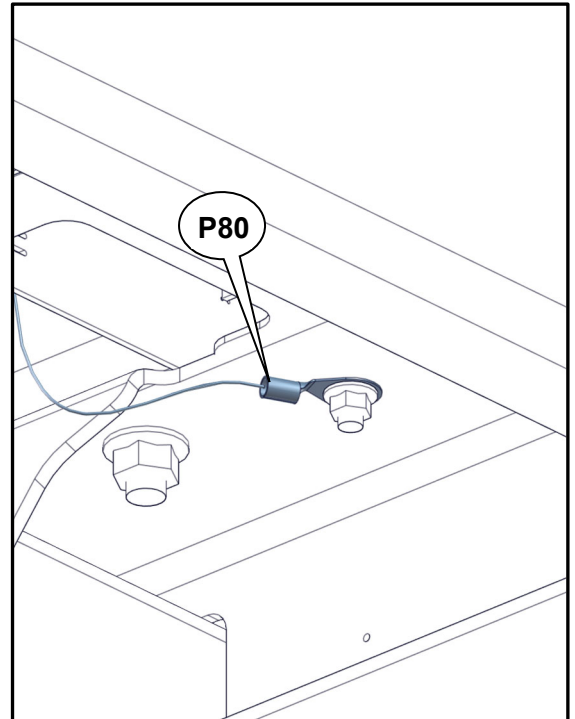
1. Route new harness **(5)** P/N 163673872 controller connections, wire harness tag numbers **P1** and **P3**, through grommet **(A)** in the side of engine enclosure.
2. Install Deutsch plug harness tag number **P1** to controller port J1.
3. Install Deutsch plug harness tag number **P3** to controller port J3.



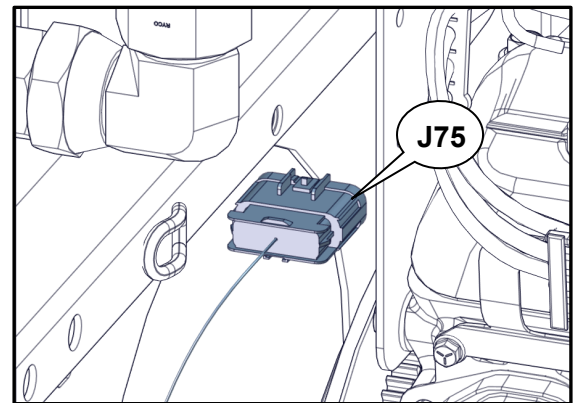
4. Install harness ring terminal, harness tag number **P140**, to circuit breaker using retained hardware. Reinstall insulation boot.



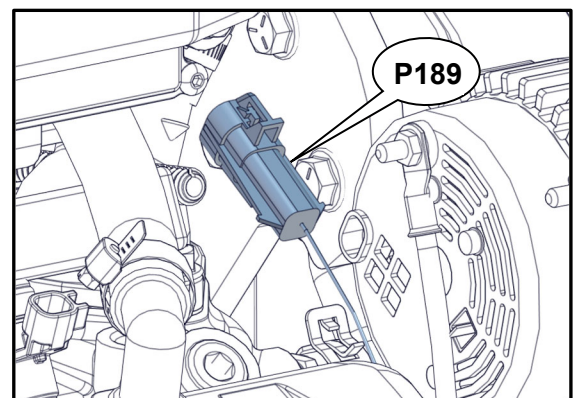
5. Install harness ring terminal, harness tag number **P80**, to retained frame ground screw. Ensure connection is free of dirt and/or debris that may prohibit proper ground connection.



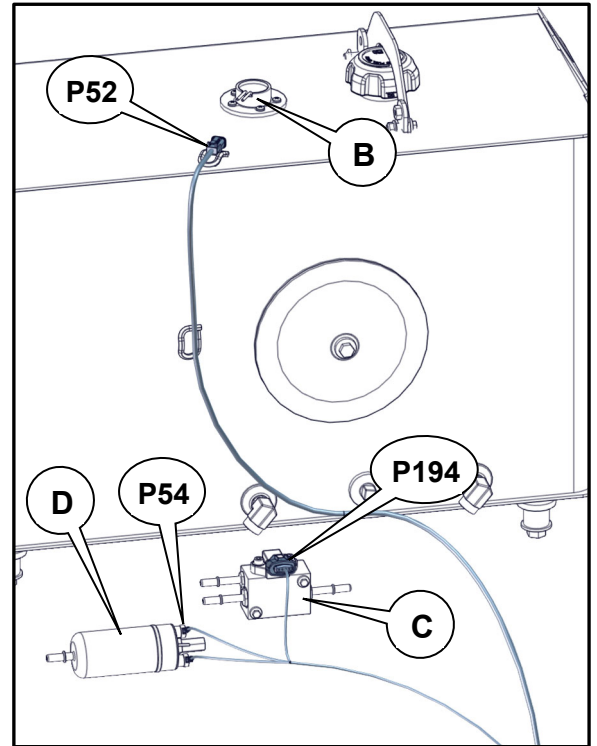
6. Install harness Packard connector, harness tag number **J75**, to engine (connection not shown).



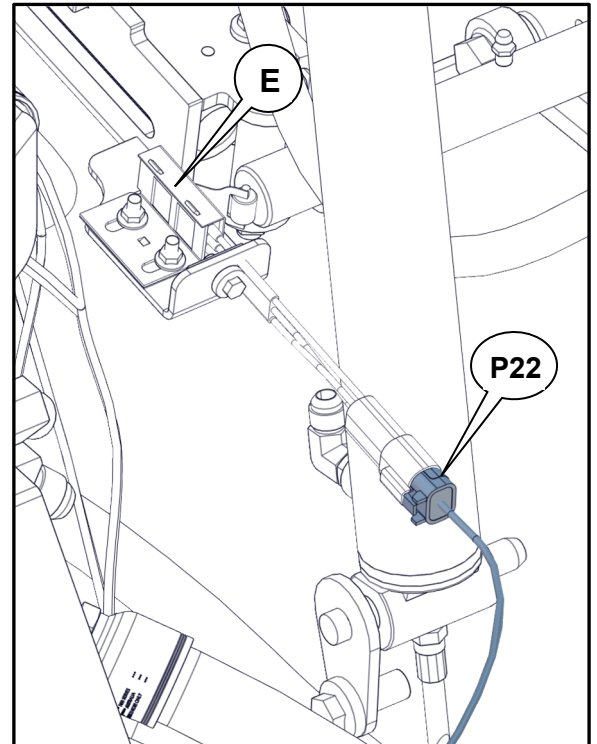
7. Install harness Delphi connector, harness tag number **P189**, to engine (connection not shown).



8. Install Deutsch socket, harness tag number **P52**, to fuel level sensor (**B**).
9. Install Bosch plug, harness tag number **P194**, to fuel manifold (**C**).
10. Install positive and negative terminals, harness tag number **P54**, to fuel pump (**D**).



11. Install Deutsch connector, harness tag number **P22**, to throttle switch (**E**).

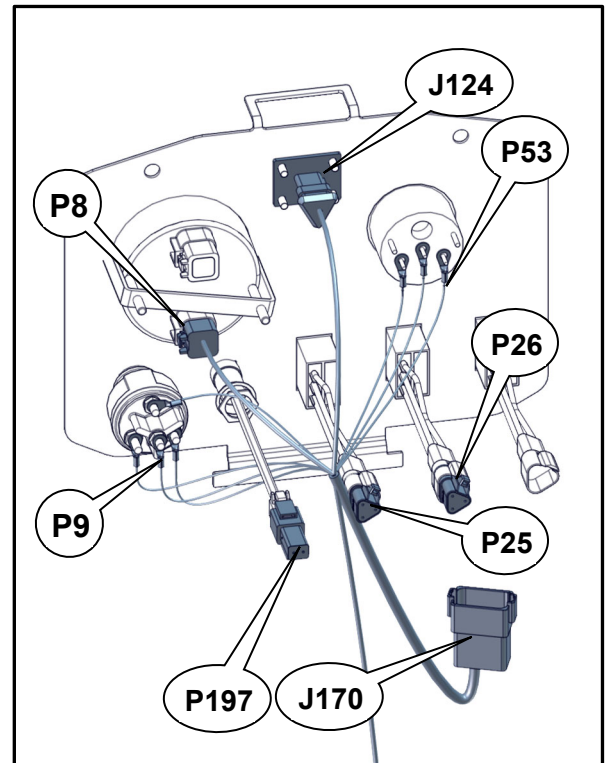


12. Install CAN receptacle, harness tag number **J124**, to control panel using retained hardware.
13. Install Deutsch connector, harness tag number **P8**, to multifunction display.
14. Install Deutsch connector, harness tag number **P26**, to drop set switch.
15. Install Deutsch connector, harness tag number **P197**, to check engine light.
16. Install Deutsch connector, harness tag number **P25**, to Ecolidle switch.
17. Deutsch connector, harness tag number **J170**, will be connected to rear harness in the next procedure.
18. Install ring terminals, harness tag number **P53**, to fuel gauge terminals marked on gauge:

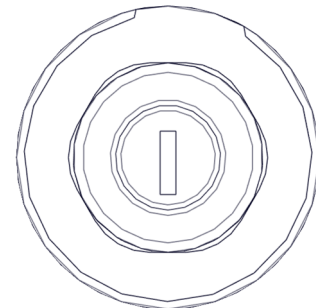
- Orange wire to fuel gauge terminal B+
- Black wire to fuel gauge terminal G
- Purple wire to fuel gauge terminal S

19. Install ring terminals, harness tag number **P9**, to ignition switch:

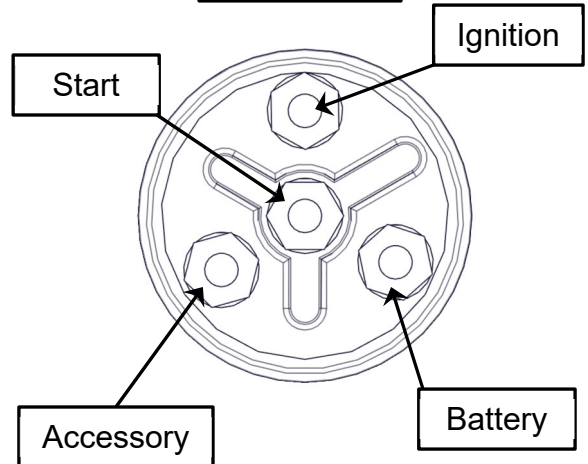
- Red wire to ignition switch to battery terminal
- White wire to ignition switch to start terminal
- Yellow wire to ignition switch to ignition terminal
- Yellow wire to ignition switch to accessory terminal



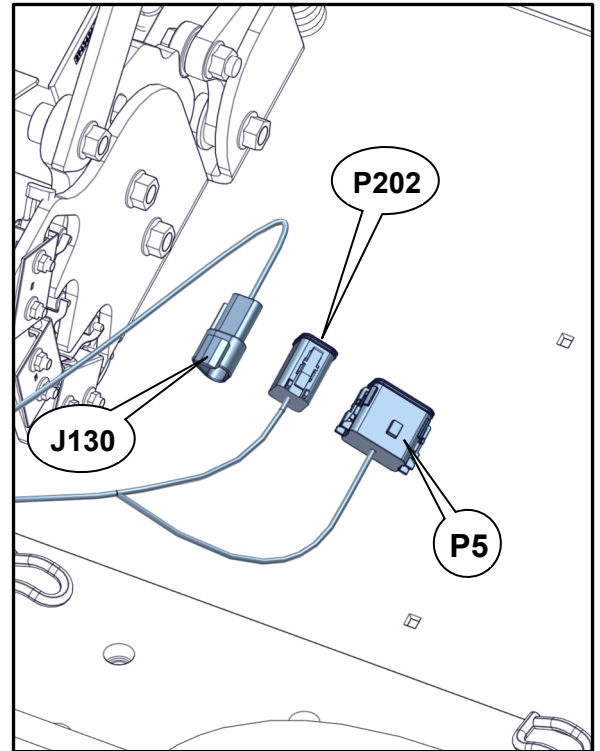
Front view



Rear view

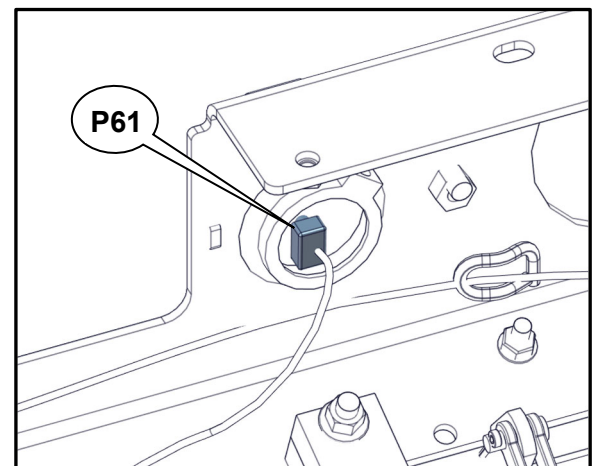
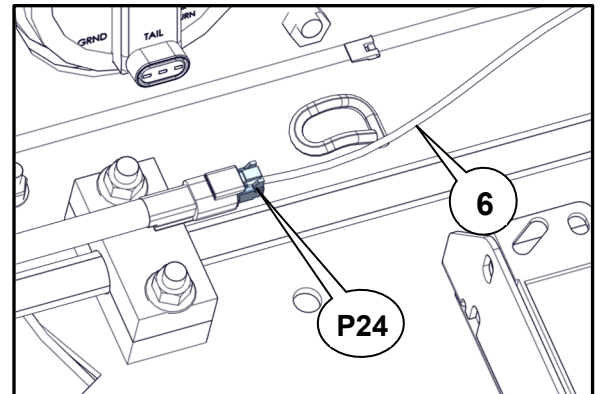


20. If machine has remote option installed, connect Deutsch plug, harness tag number **P202**, to remote harness tag number **P202**.
21. Deutsch connector, harness tag number **J130**, is connected to rear harness later in the next procedure.
22. If machine is equipped with telematics controller (not shown), connect harness tag number **P5** to control unit.

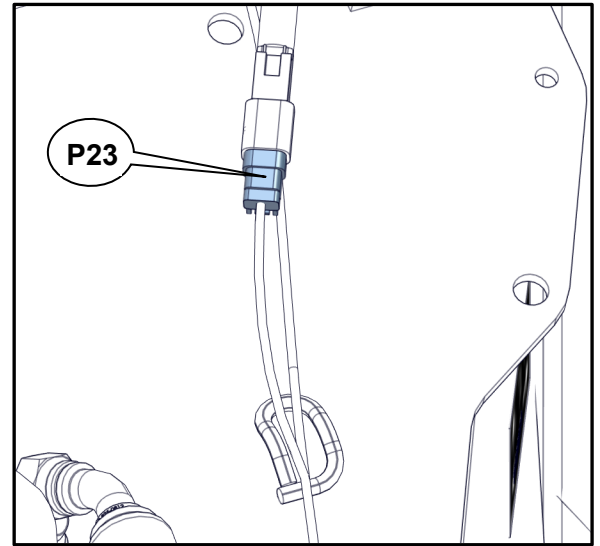


PROCEDURE 3: Rear harness installation (IK03)

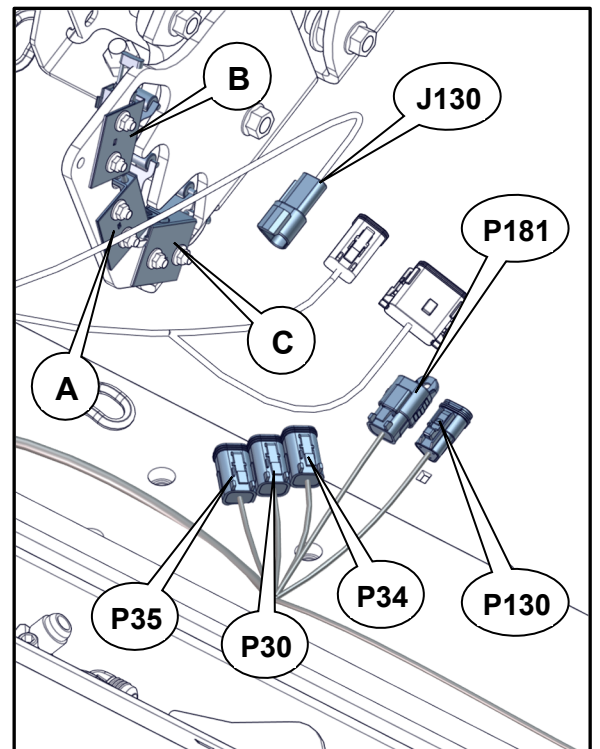
1. Install new harness (**6**) P/N 163673873 Deutsch plug, harness tag number **P24**, to right hold-to-run switch.
2. Install Trucklite connector, harness tag number **P61**, to information light.



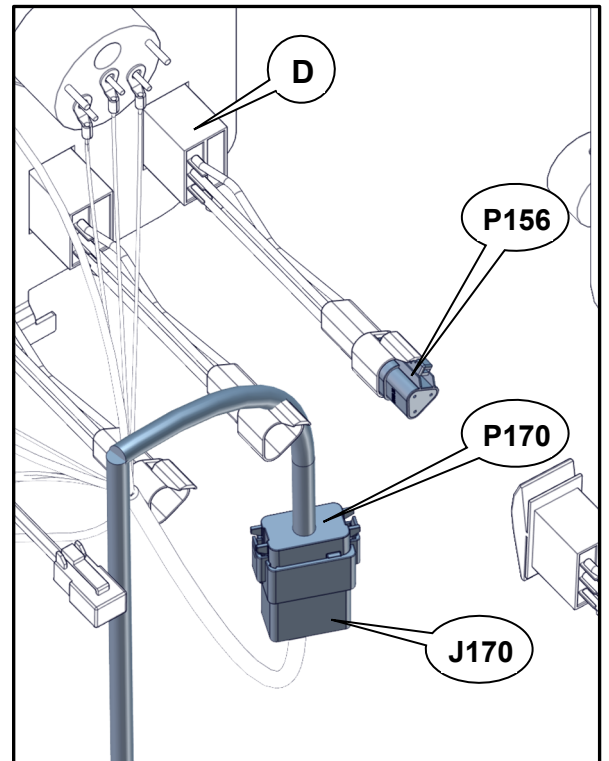
3. Install Deutsch plug, harness tag number **P23**, to left hold-to-run switch.



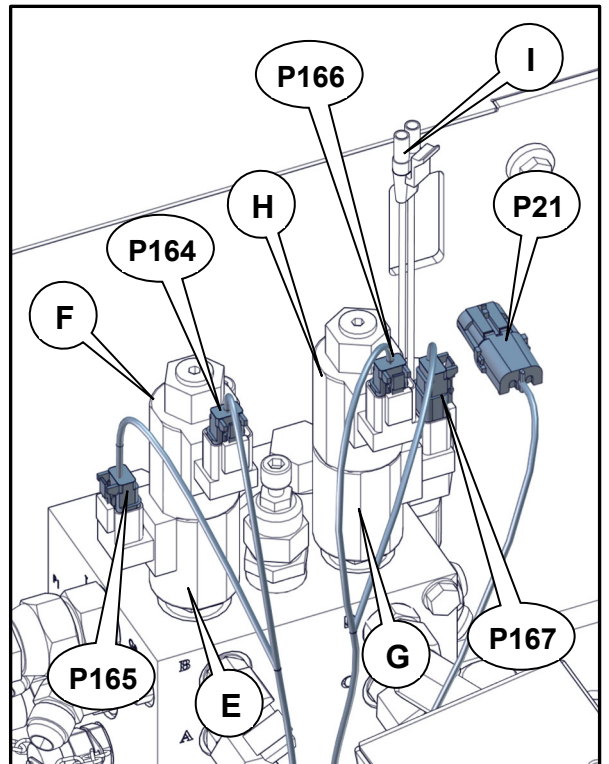
4. Install rear harness Deutsch plug, harness tag number **P130**, to front harness Deutsch connector, harness tag number **J130**.
5. If winch option is installed on machine, install Deutsch plug, harness tag number **P181**, to winch harness Deutsch connector, harness tag number **J56** (not shown).
6. Install Deutsch plug, harness tag number **P34**, to forward feed switch **(A)**.
7. Install Deutsch plug, harness tag number **P30**, to feed stop switch **(B)**.
8. Install Deutsch plug, harness tag number **P35**, to reverse feed switch **(C)**.



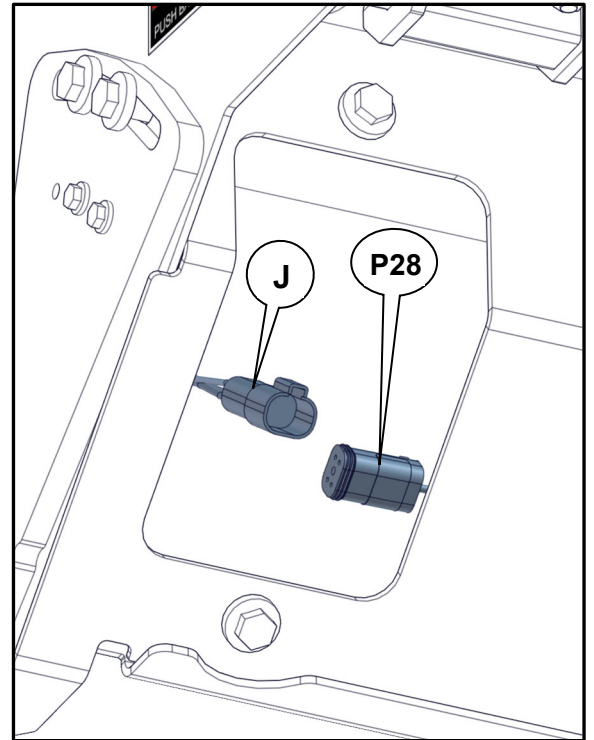
9. Install Deutsch plug, harness tag number **P170**, to front harness tag number **J170**.
10. Install Deutsch plug, harness tag number **P156**, to sensitivity selection switch (**D**).



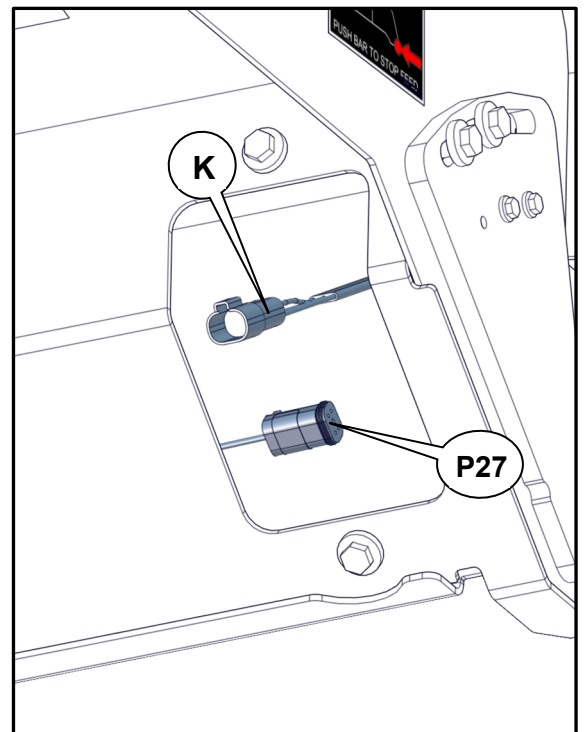
11. Install Deutsch plug, harness tag number **P165**, to upper feed roller reverse solenoid (**E**).
12. Install Deutsch plug, harness tag number **P164**, to upper feed roller forward solenoid (**F**).
13. Install Deutsch plug, harness tag number **P167**, to lower feed roller reverse solenoid (**G**).
14. Install Deutsch plug, harness tag number **P166**, to lower feed roller forward solenoid (**H**).
15. Install Deutsch plug, harness tag number **P21**, to over-pressure sensor (**I**).



16. Install Deutsch plug, harness tag number **P28**, to reduced sensitivity switch (**J**).

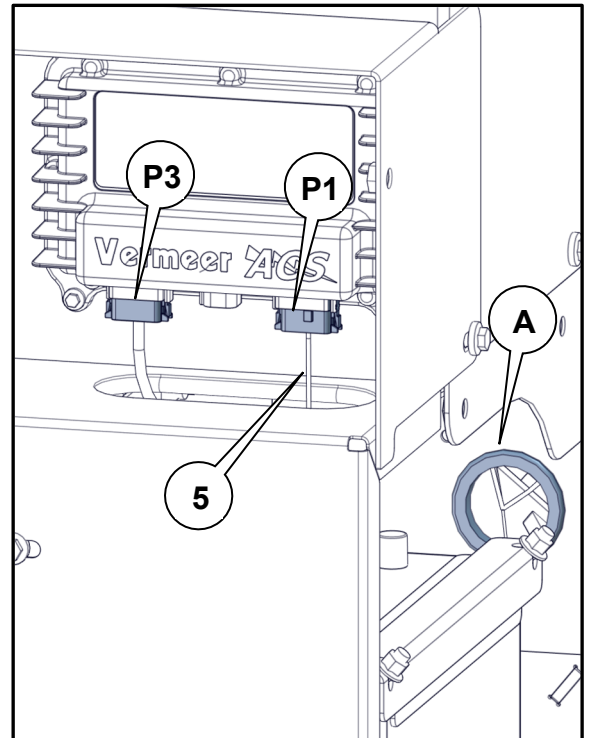


17. Install Deutsch plug, harness tag number **P27**, to normal sensitivity switch (**K**).

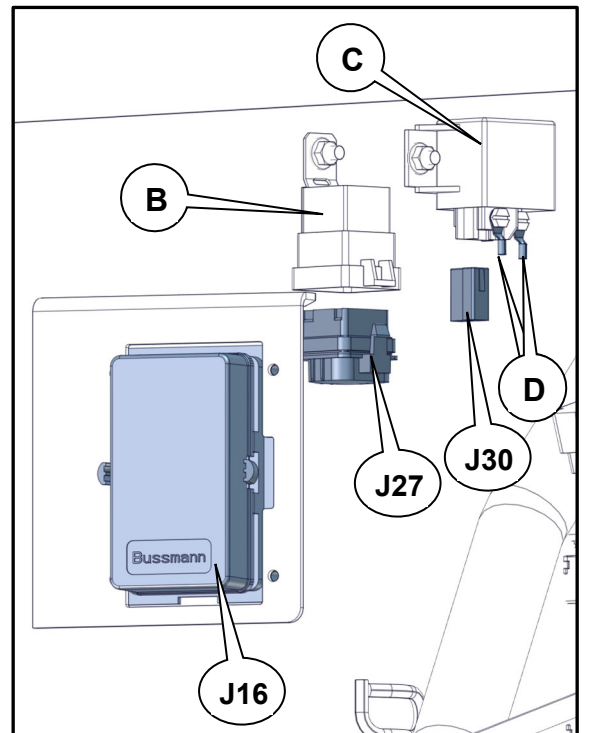


PROCEDURE 4: Front harness installation (IK02)

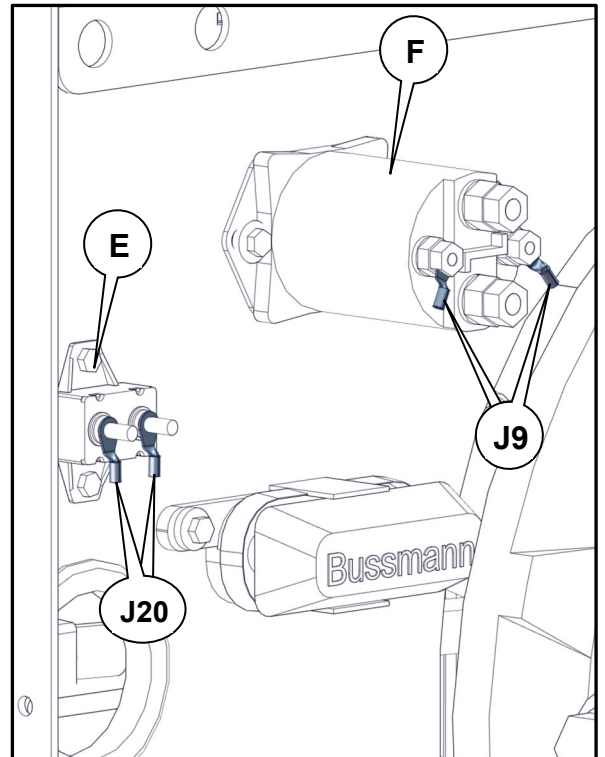
1. Route new harness (5) P/N 163673874 controller connections, wire harness tag numbers **P1** and **P3**, through grommet (**A**) in the side of engine enclosure.
2. Install Deutsch plug, harness tag number **P1**, to controller port J1.
3. Install Deutsch plug, harness tag number **P3**, to controller port J3.



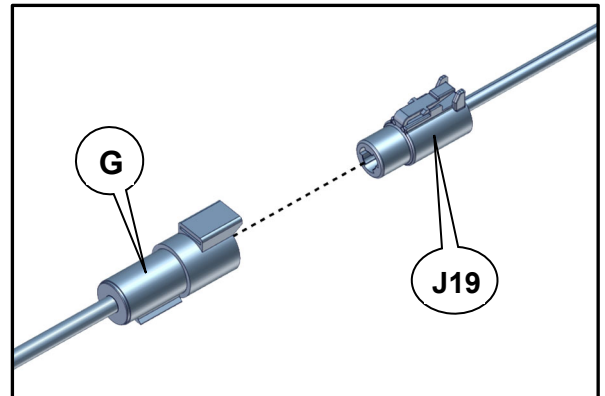
4. Install lockout relay, harness tag number **J27**, to relay holder (**B**).
5. Install Tyco plug, harness tag number **J30**, to starter relay (**C**).
6. Install ring terminals (**D**) to starter relay (**C**).
7. Install fuse block assembly, harness tag number **J16**, to fuse block mount using retained hardware.



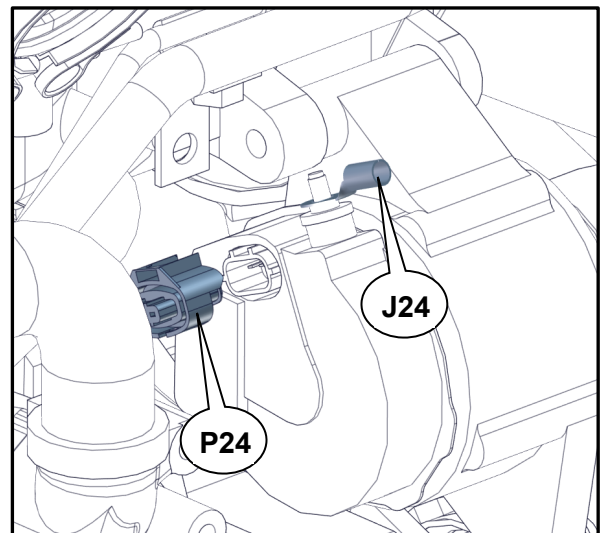
8. Install ring terminals, harness tag number **J20**, to circuit breaker (**E**). Reinstall insulation boot.
9. Install ring terminals, harness tag number **J9**, to grid heater relay (**F**). Reinstall insulation boot.



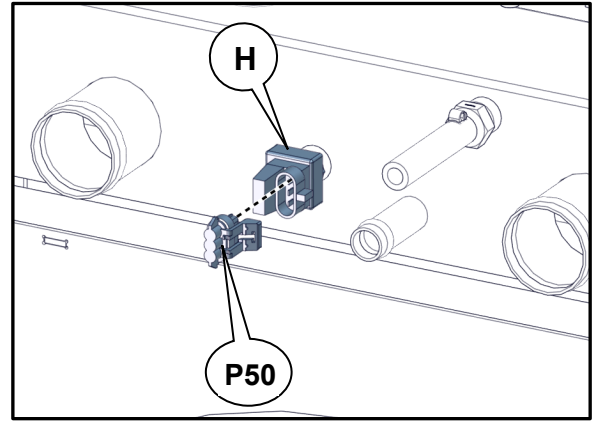
10. Install Deutsch connector, harness tag number **J19**, to ground battery cable Deutsch plug (**G**).



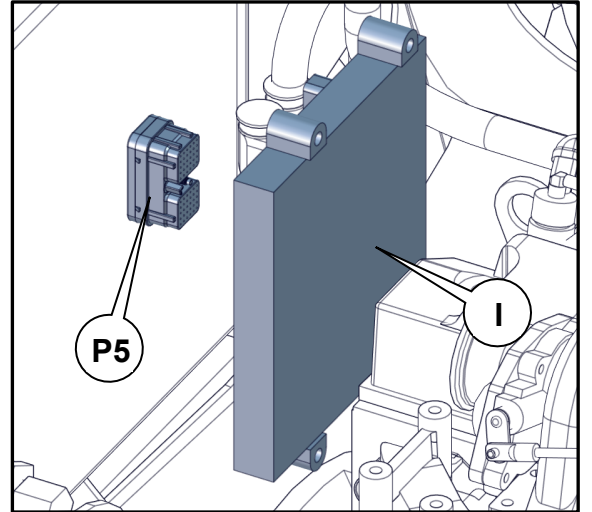
11. Install Sumitomo plug, harness tag number **P24**, to engine alternator.
12. Install ring terminal, harness tag number **J24**, to engine alternator.



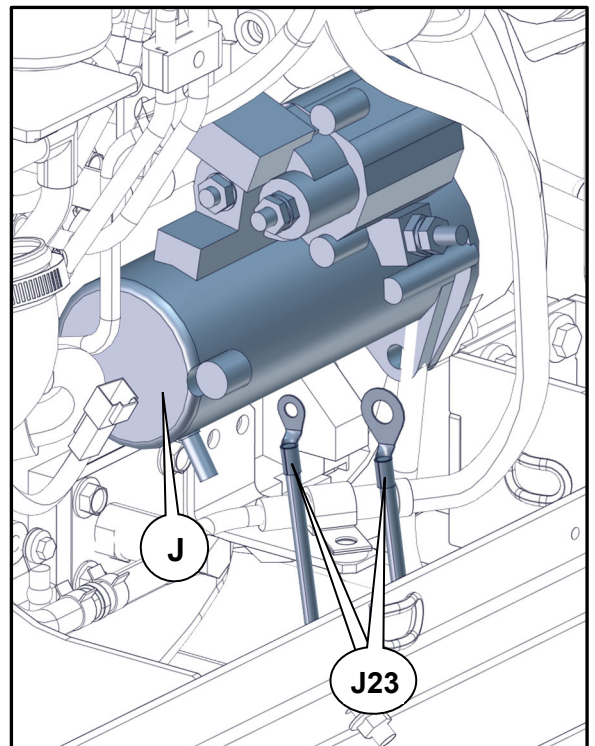
13. Install Packard plug, harness tag number **P50**, to coolant level sensor (**H**).



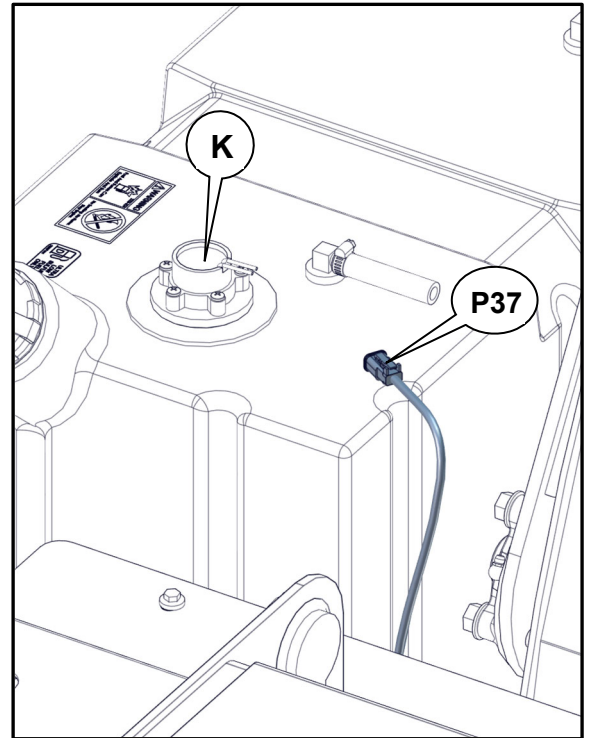
14. Install Deutsch plug, harness tag number **P5**, to engine ECM (**I**).



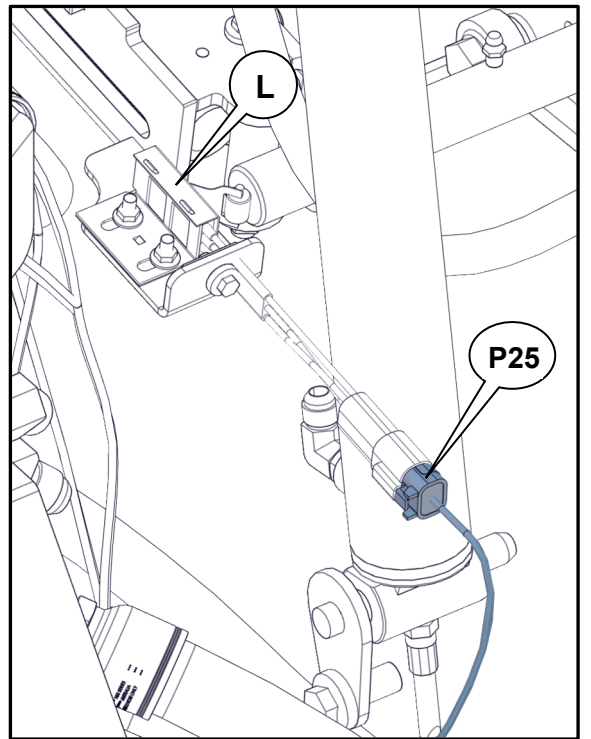
15. Install ring terminals, harness tag number **J23**, to starter (**J**). Reinstall insulation boot.



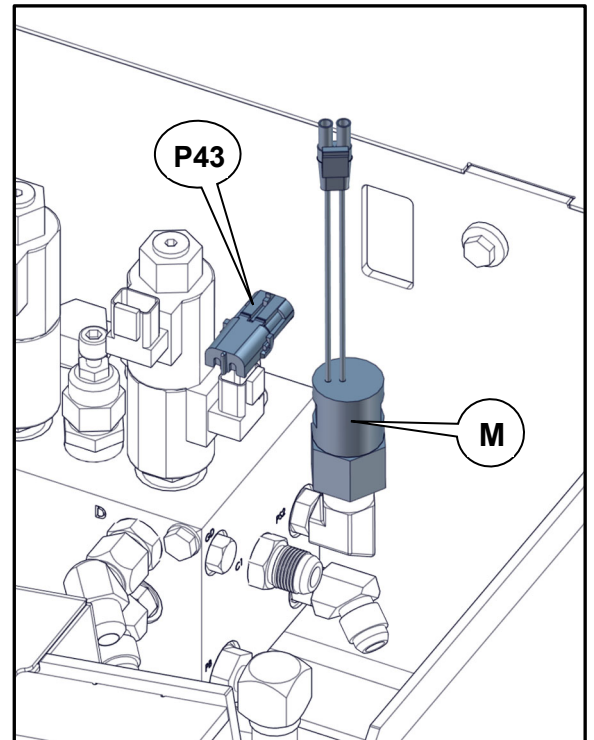
16. Install Deutsch plug, harness tag number **P37**, to fuel level sensor (**K**).



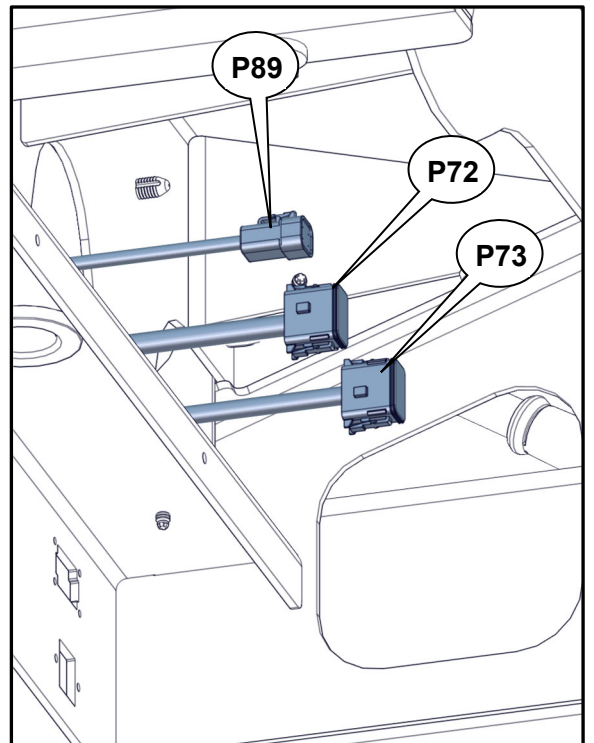
17. Install Deutsch plug, harness tag number **P25**, to throttle switch (**L**).



18. Install Deutsch plug, harness tag number **P43**, to over-pressure sensor (**M**).

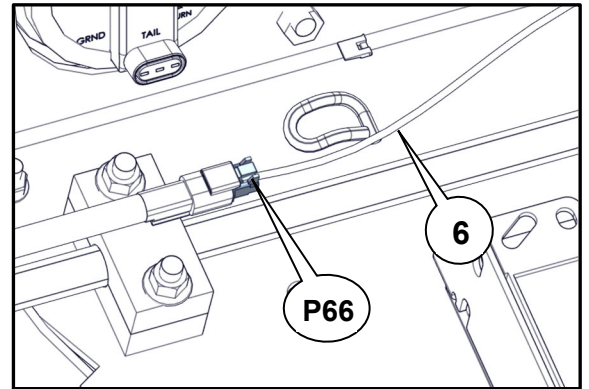


19. Deutsch plugs, harness tag numbers **P72**, **P73** and **P89**, will be connected to rear harness in the next procedure.

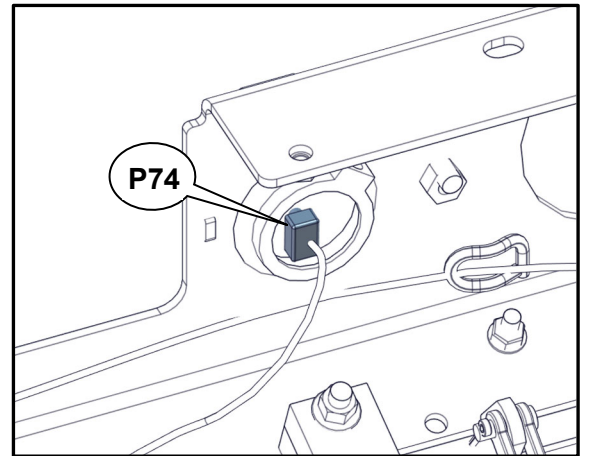


PROCEDURE 5: Rear harness installation (IK02)

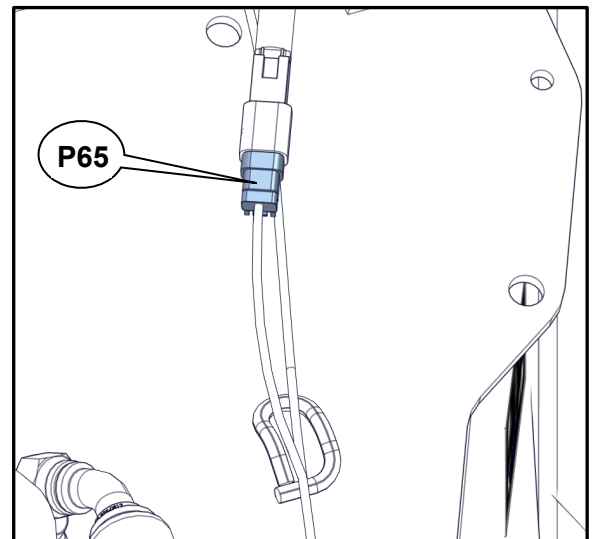
1. Install new harness (6) P/N 163673875 Deutsch plug, harness tag number **P66**, to right hold-to-run switch.



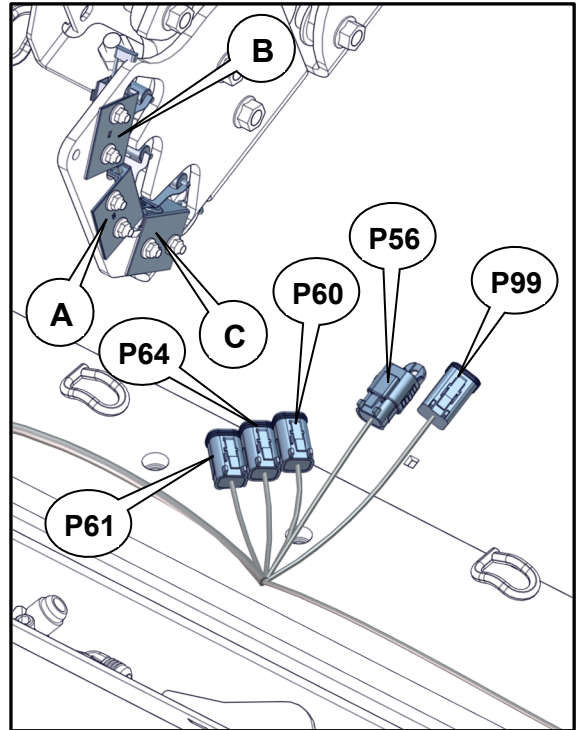
2. Install Trucklite connector, harness tag number **P74**, to Information light.



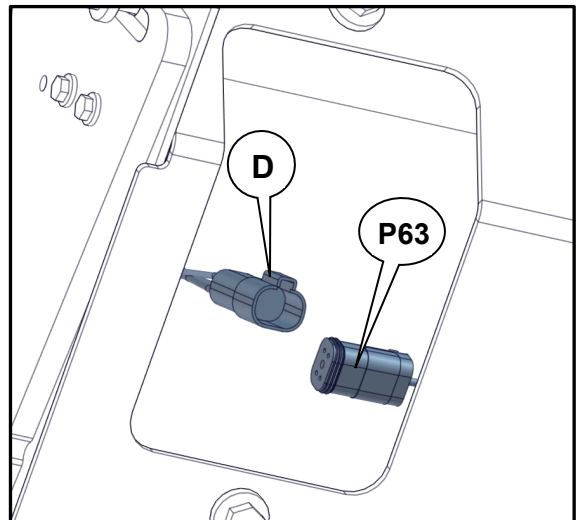
3. Install Deutsch plug, harness tag number **P65**, to left hold-to-run switch.



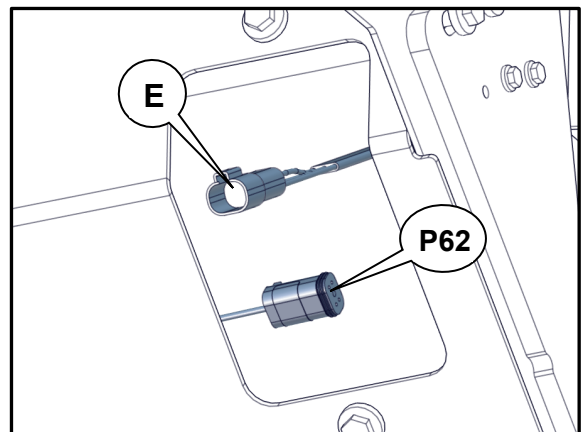
4. If winch option is installed on machine, install Deutsch plug, harness tag number **P56**, to winch harness Deutsch connector, harness tag number **J56** (not shown).
5. Install Deutsch plug, harness tag number **P60**, to forward feed switch **(A)**.
6. Install Deutsch plug, harness tag number **P64**, to feed stop switch **(B)**.
7. Install Deutsch plug, harness tag number **P61**, to reverse feed switch **(C)**.
8. If machine has remote option installed, connect Deutsch plug, harness tag number **P99**, to remote harness tag number **P202**.



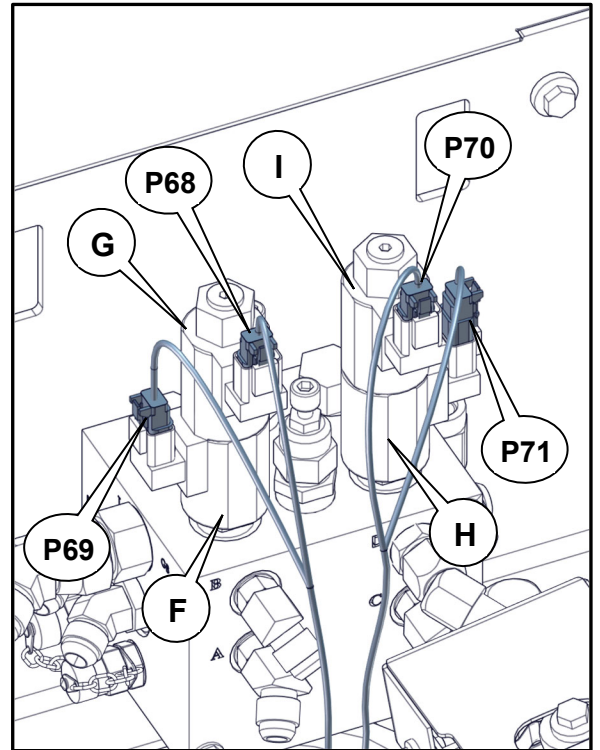
9. Install Deutsch plug, harness tag number **P63**, to reduced sensitivity switch **(D)**.



10. Install Deutsch plug, harness tag number **P62**, to normal sensitivity switch **(E)**.



11. Install Deutsch plug, harness tag number **P69**, to upper feed roller reverse solenoid (**F**).
12. Install Deutsch plug, harness tag number **P68**, to upper feed roller forward solenoid (**G**).
13. Install Deutsch plug, harness tag number **P71**, to lower feed roller reverse solenoid (**H**).
14. Install Deutsch plug, harness tag number **P70**, to lower feed roller forward solenoid (**I**).

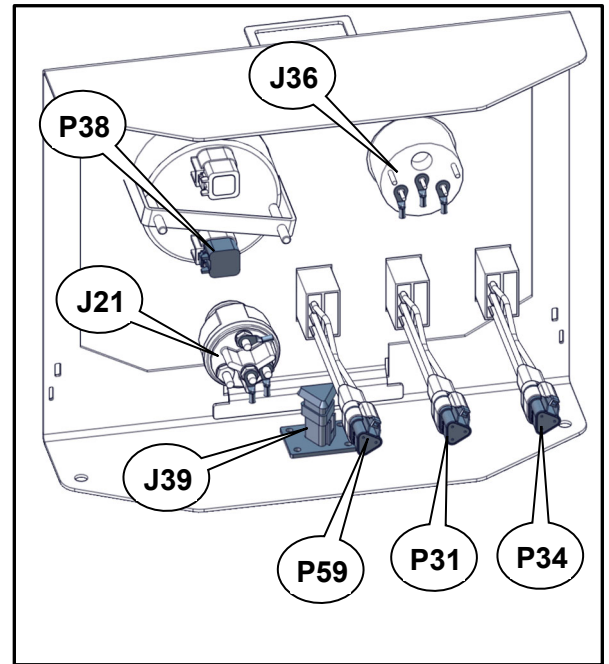


15. Install CAN receptacle, harness tag number **J39**, to control panel using retained hardware.
23. Install Deutsch connector, harness tag number **P38**, to multifunction display.
24. Install Deutsch connector, harness tag number **P31**, to droop set switch.
25. Install Deutsch connector, harness tag number **P34**, to Ecolde switch.
26. Install Deutsch connector, harness tag number **P59**, to sensitivity selection switch.
27. Install ring terminals, harness tag number **J36**, to fuel gauge terminals marked on gauge:

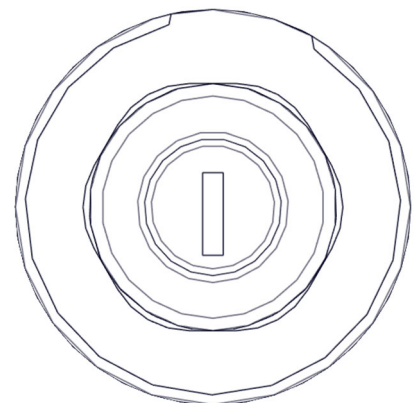
- Orange wire to fuel gauge terminal B+
- Black wire to fuel gauge terminal G
- Purple wire to fuel gauge terminal S

28. Install ring terminals, harness tag number **J21**, to ignition switch:

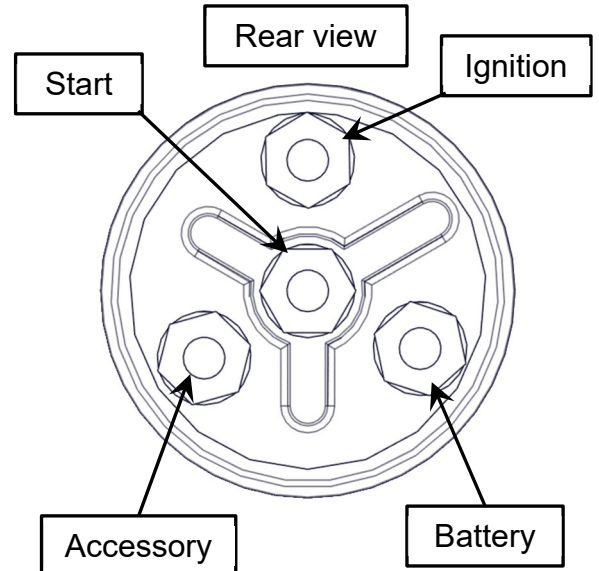
- Orange wire to ignition switch to battery terminal
- White wire to ignition switch to start terminal
- Yellow wire to ignition switch to ignition terminal
- Accessory terminal is not used



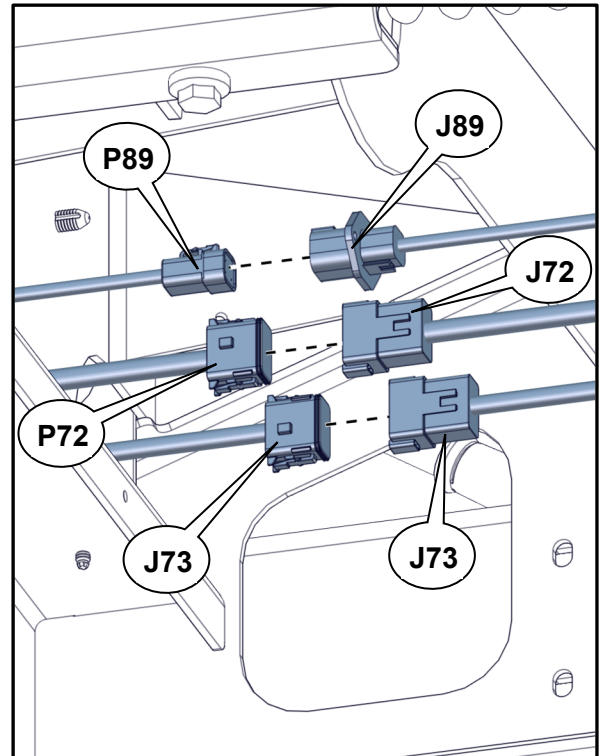
Front view



Rear view

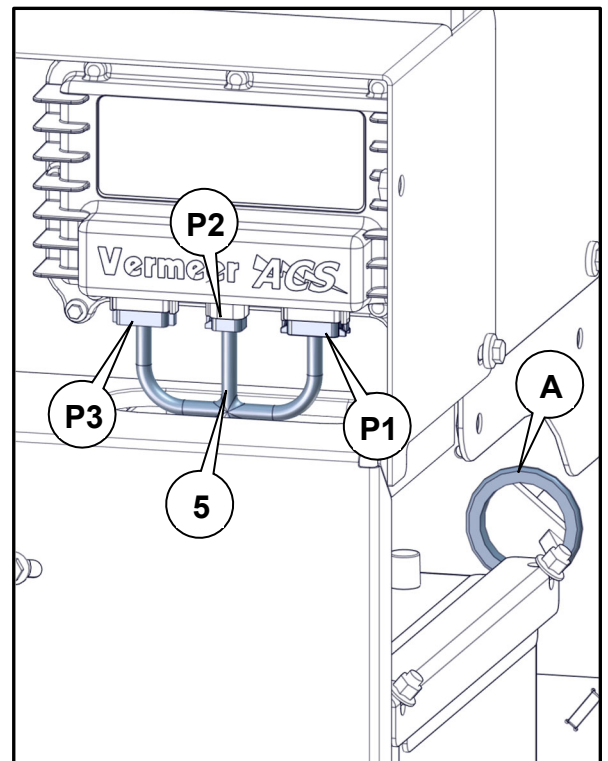


16. Install Deutsch connector, harness tag number **J72**, to front harness Deutsch plug, harness tag number **P72**.
17. Install Deutsch connector, harness tag number **J73**, to front harness Deutsch plug, harness tag number **P73**.
18. Install Deutsch connector, harness tag number **J89**, to front harness Deutsch plug, harness tag number **P89**.

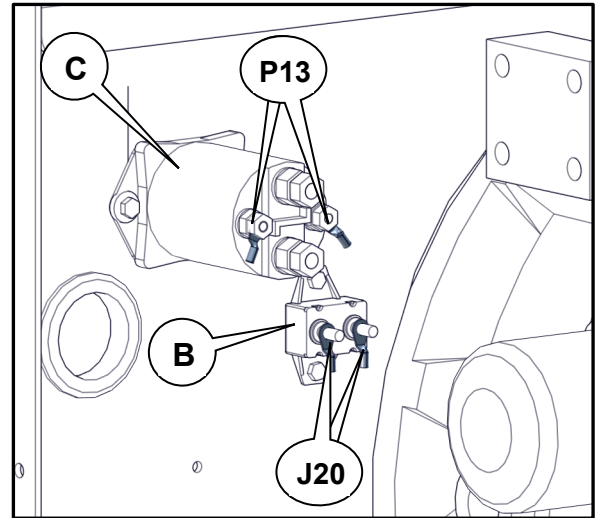


PROCEDURE 6: Front harness installation (IK01)

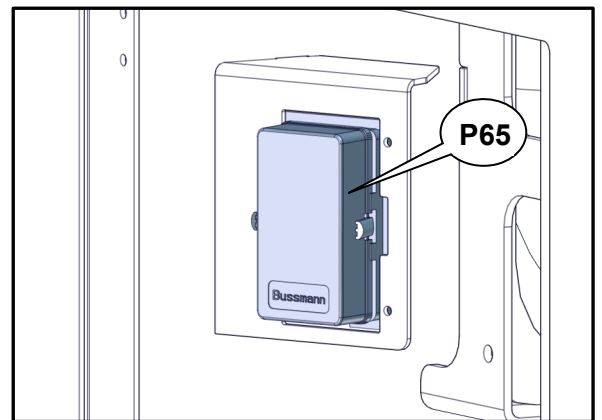
1. Route new harness (5) P/N 163673876 controller connections, wire harness tag numbers **P1**, **P2** and **P3**, through grommet (**A**) in the side of engine enclosure.
2. Install Deutsch plug, harness tag number **P1**, to controller port J1.
3. Install Deutsch plug, harness tag number **P2**, to controller port J2.
4. Install Deutsch plug harness tag number **P3** to controller port J3.



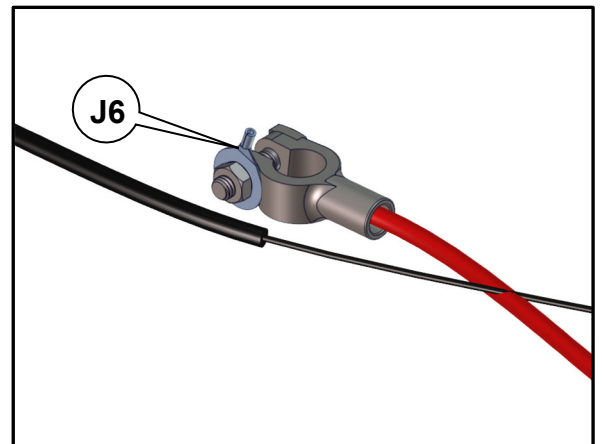
5. Install ring terminals, harness tag number **J20**, to circuit breaker (**B**). Reinstall insulation boot.
6. Install ring terminals, harness tag number **P13**, to grid heater relay (**C**). Reinstall insulation boot.



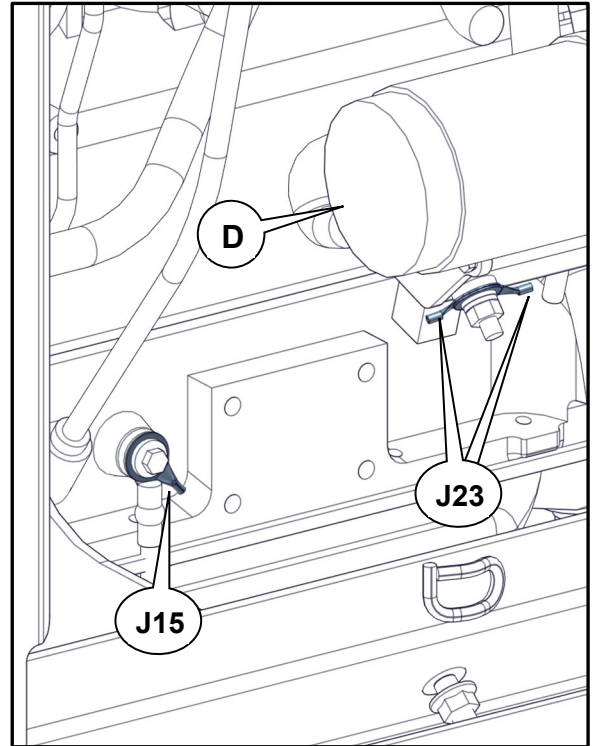
7. Install fuse block assembly, harness tag number **P65**, to fuse block mount using retained hardware.



8. Install ring terminal, harness tag number **J6**, to positive battery cable. Do not connect battery cable to battery.

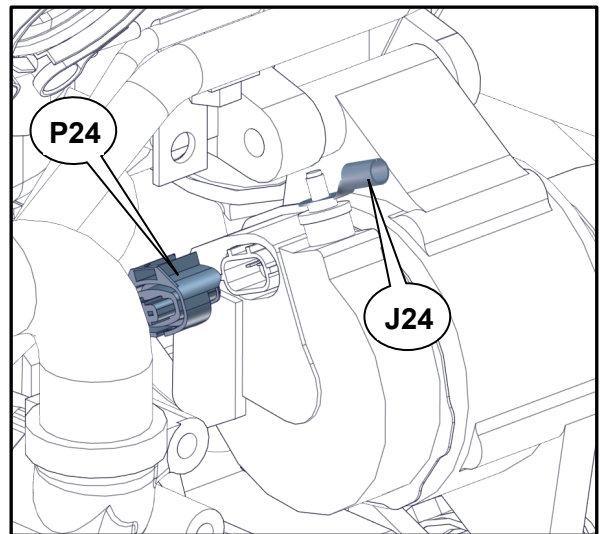


9. Install ring terminal, harness tag number **J15**, to engine ground screw. Reinstall insulation boot.



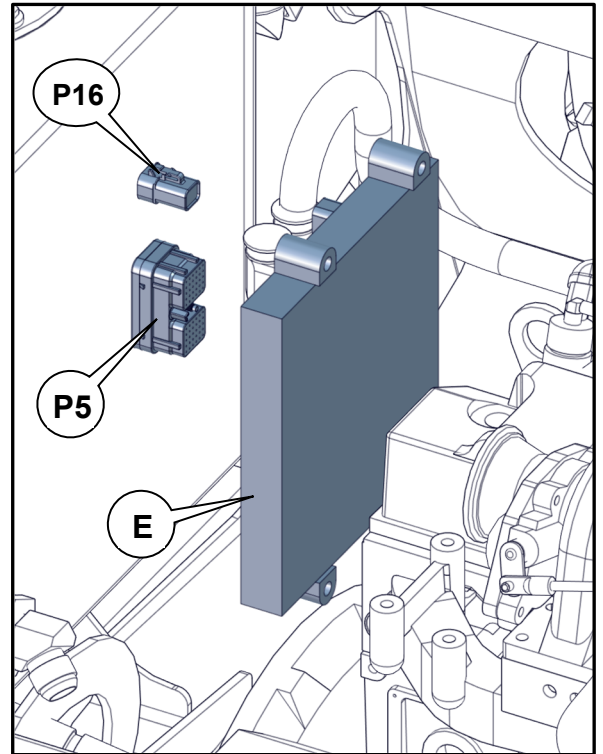
10. Install Sumitomo plug, harness tag number **P24**, to engine alternator.

11. Install ring terminal, harness tag number **J24**, to engine alternator.

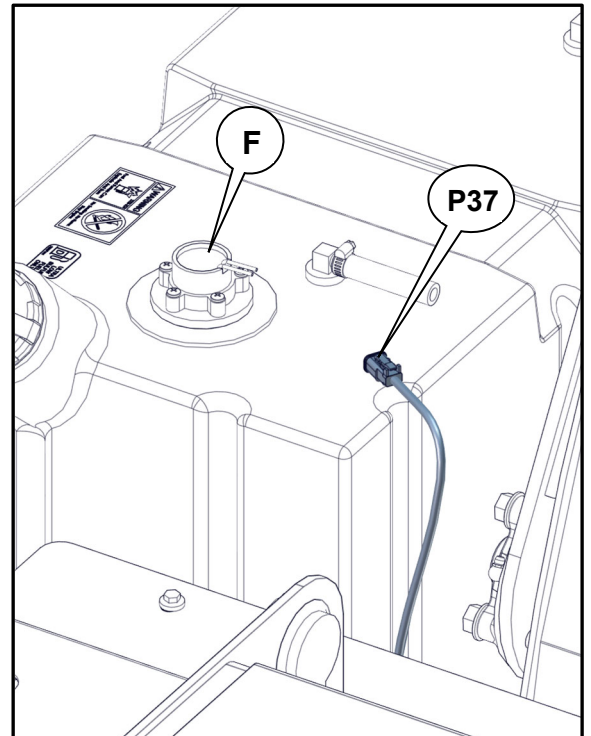


12. Install Deutsch plug, harness tag number **P5**, to engine ECM (**E**).

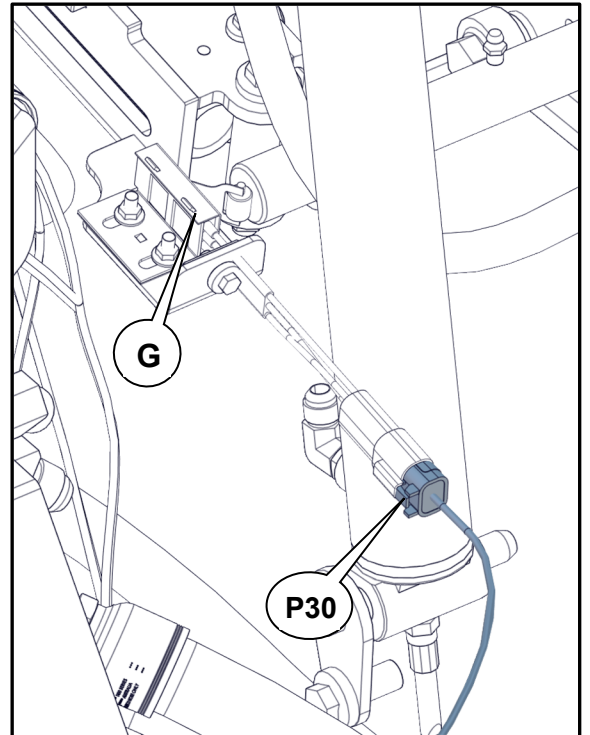
13. Install Deutsch plug, harness tag number **P16**, to engine ECM (**E**).



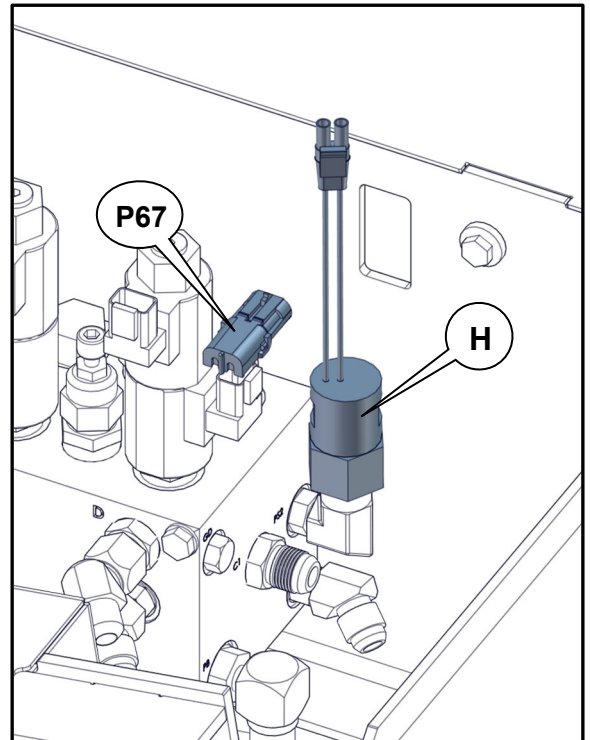
14. Install Deutsch plug, harness tag number **P37**, to fuel level sensor (**F**).



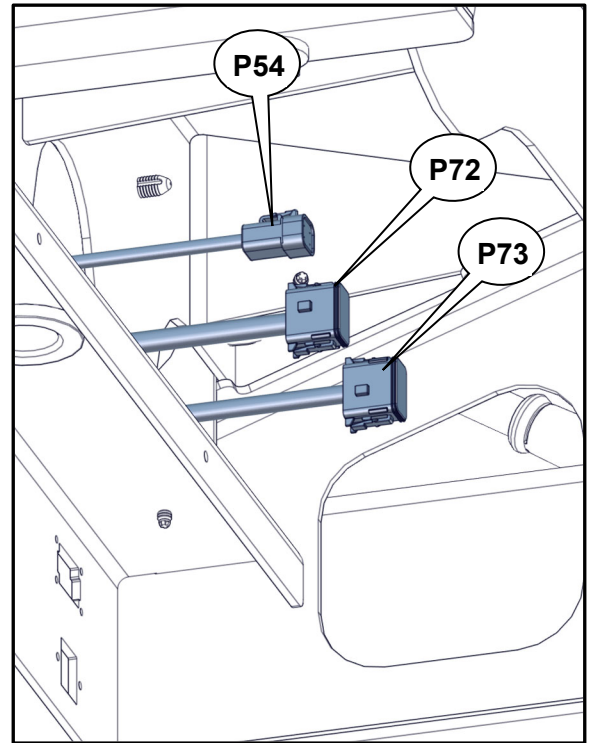
15. Install Deutsch plug, harness tag number **P30**, to throttle switch (**G**).



16. Install Deutsch plug, harness tag number **P67**, to over-pressure sensor (**H**).

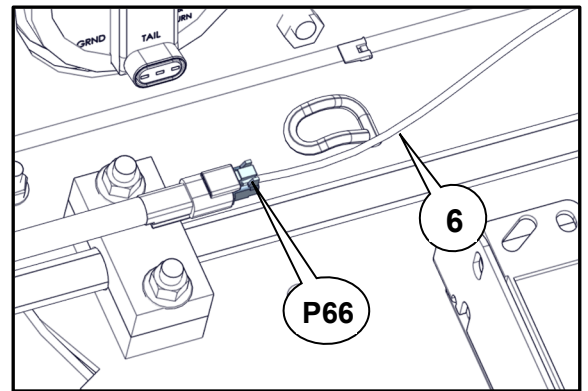


17. Deutsch plugs, harness tag numbers **P72**, **P73** and **P54**, will be connected to rear harness in the next procedure.

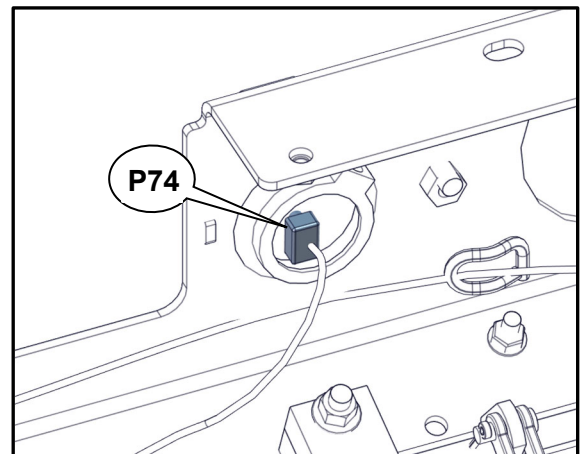


PROCEDURE 7: Rear harness installation (IK01)

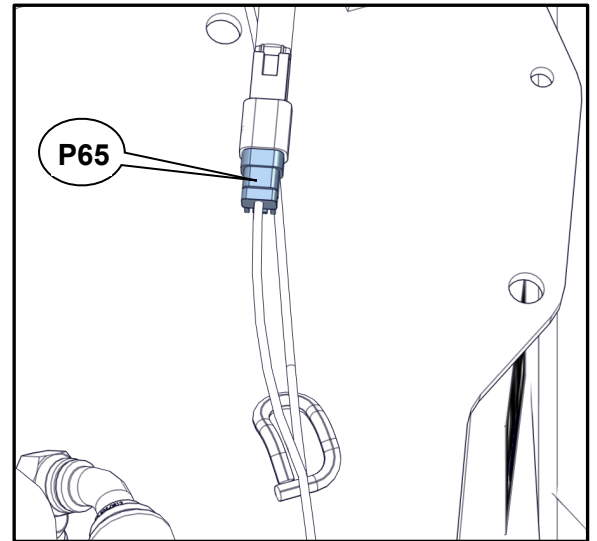
1. Install new harness (**6**) P/N 163673877 Deutsch plug, harness tag number **P66**, to right hold-to-run switch.



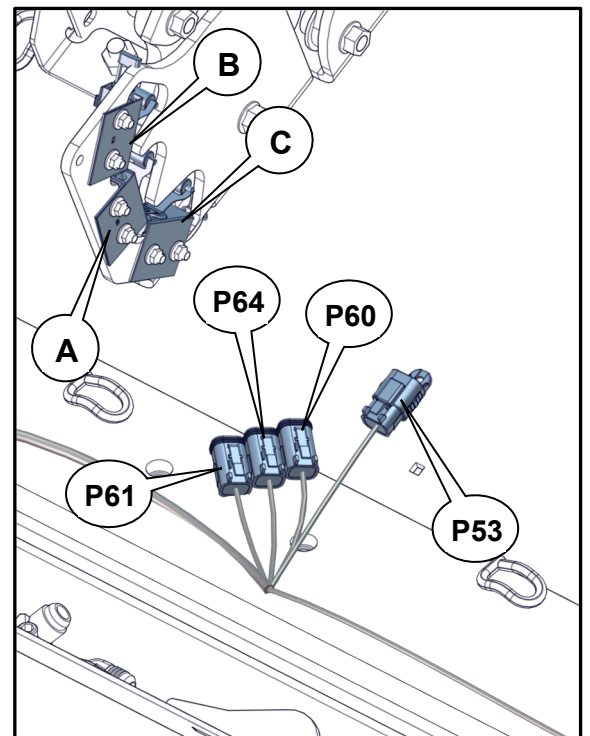
2. Install Trucklite connector, harness tag number **P74**, to information light.



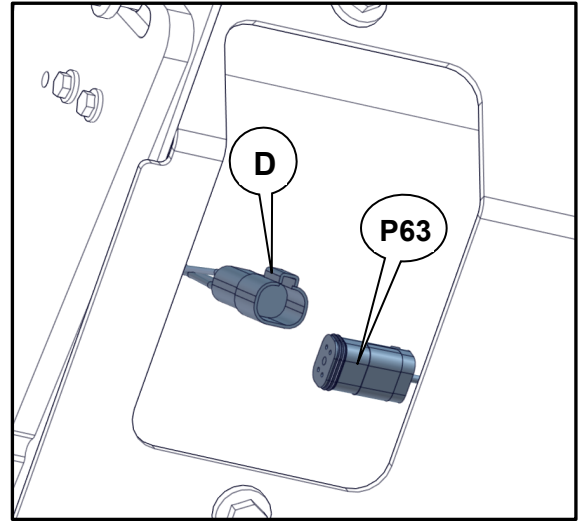
3. Install Deutsch plug, harness tag number **P65**, to left hold-to-run switch.



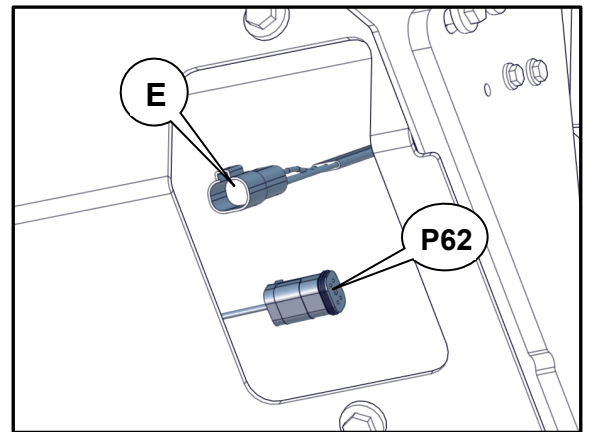
4. If winch option is installed on machine, install Deutsch plug, harness tag number **P53**, to winch harness Deutsch connector, harness tag number **J53** (not shown).
5. Install Deutsch plug, harness tag number **P60**, to forward feed switch **(A)**.
6. Install Deutsch plug, harness tag number **P64**, to feed stop switch **(B)**.
7. Install Deutsch plug, harness tag number **P61**, to reverse feed switch **(C)**.



8. Install Deutsch plug, harness tag number **P63**, to reduced sensitivity switch (**D**).



9. Install Deutsch plug, harness tag number **P62**, to normal sensitivity switch (**E**).

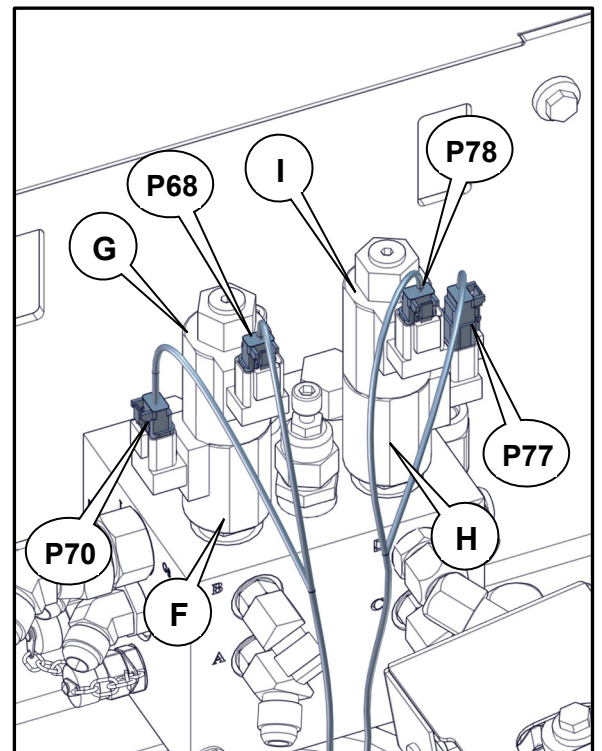


10. Install Deutsch plug, harness tag number **P70**, to upper feed roller reverse solenoid (**F**).

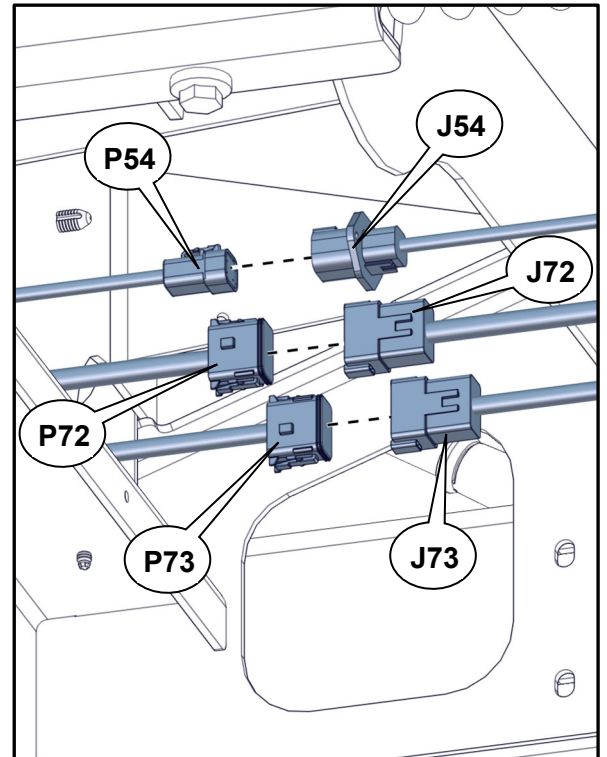
11. Install Deutsch plug, harness tag number **P68**, to upper feed roller forward solenoid (**G**).

12. Install Deutsch plug, harness tag number **P77**, to lower feed roller reverse solenoid (**H**).

13. Install Deutsch plug, harness tag number **P78**, to lower feed roller forward solenoid (**I**).



14. Install Deutsch connector, harness tag number **J72**, to front harness Deutsch plug, harness tag number **P72**.
15. Install Deutsch connector, harness tag number **J73**, to front harness Deutsch plug, harness tag number **P73**.
16. Install Deutsch connector, harness tag number **J54**, to front harness Deutsch plug, harness tag number **P54**.



17. Install CAN receptacle, harness tag number **P41**, to control panel using retained hardware.

29. Install Deutsch connector, harness tag number **P38**, to multifunction display.

30. Install Deutsch connector, harness tag number **P31**, to droop switch.

31. Install Deutsch connector, harness tag number **P59**, to sensitivity selection switch.

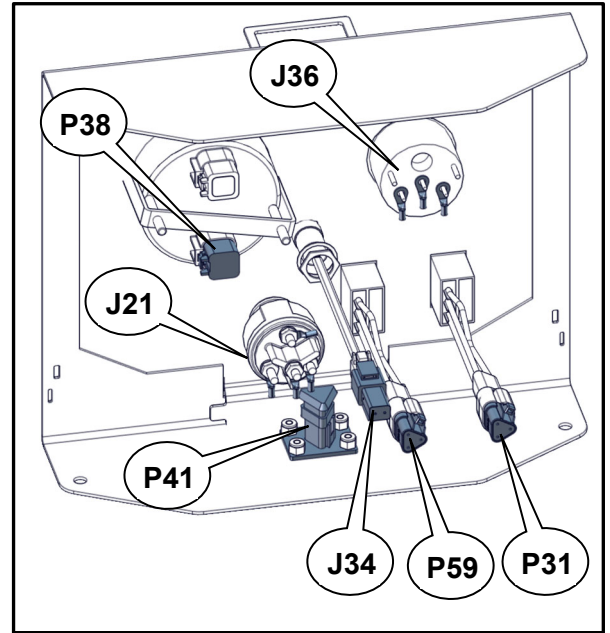
32. Install Deutsch connector, harness tag number **J34**, to wait-to-start lamp.

33. Install ring terminals, harness tag number **J36**, to fuel gauge terminals marked on gauge:

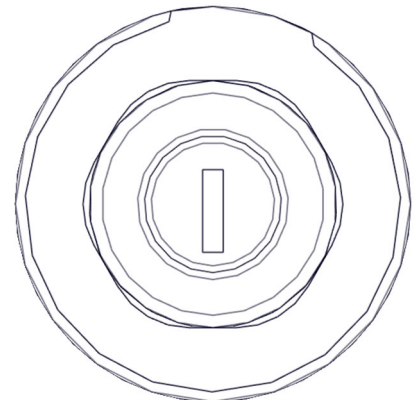
- Yellow wire to fuel gauge terminal B+
- Black wire to fuel gauge terminal G
- Purple wire to fuel gauge terminal S

34. Install ring terminals, harness tag number **J21**, to ignition switch:

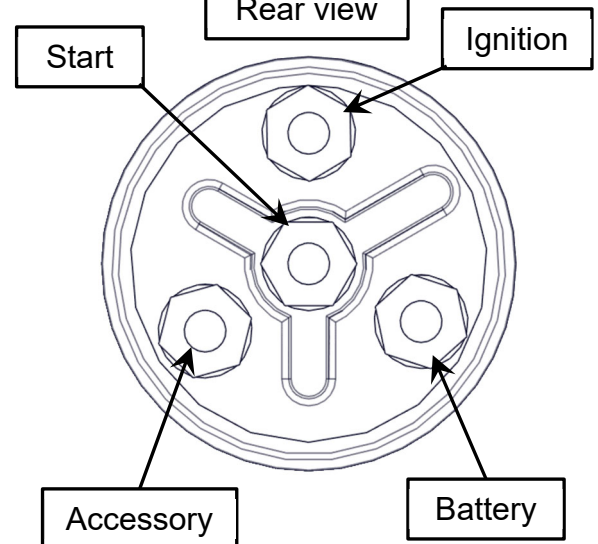
- Orange wire to ignition switch to battery terminal
- White wire to ignition switch to start terminal
- Yellow wire to ignition switch to ignition terminal
- Yellow wire to accessory terminal



Front view

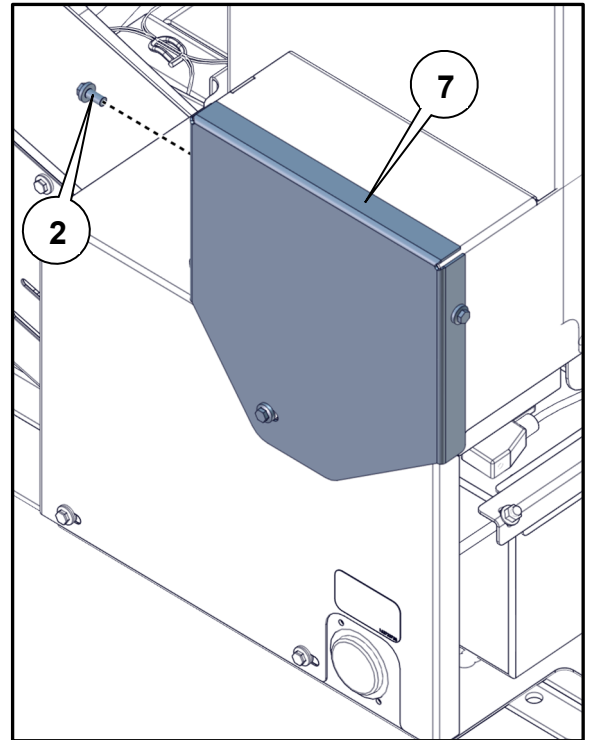


Rear view

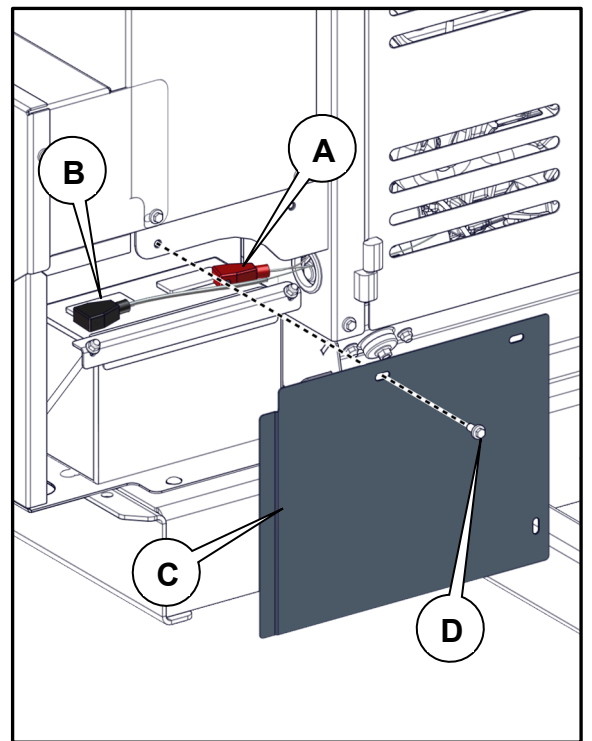


PROCEDURE 6: Battery cable installation (IK01, IK02, IK03)

1. Install new controller cover **(7)** P/N 163709700 using new screws **(2)** P/N 507612020.



2. Apply a light coating of petroleum jelly around base of each battery terminal.
3. Install positive (+) battery cable **(A)** first. Then install negative (-) battery cable **(B)**. Check that red cap over positive clamp is properly installed.
4. Install retained battery access panel **(C)** using retained hardware **(D)**.
5. Remove Figure 1, 2, or 3 and attach to invoice or place in manual storage box so unit owner can place with existing parts manual.



UNIT OWNER COPY:
Insert in parts manual
for future reference.

Figure 1

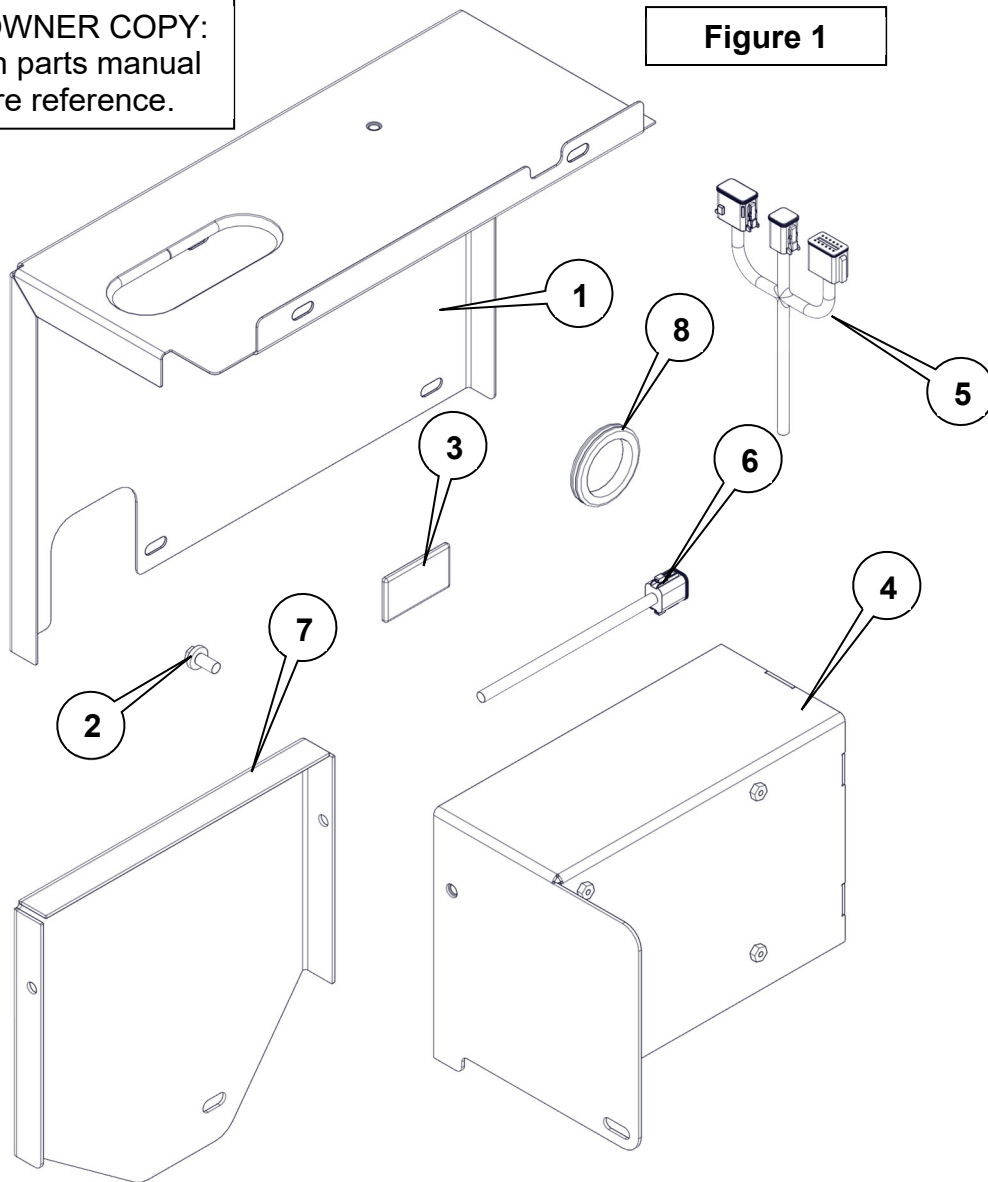


Figure 1 Parts List

REF. NO.	PART NO.	DESCRIPTION	IK01 QTY.
1	163709704	BATTERY COVER	1
2	507612020	SCREW-HFS,M10-1.50X20	8
3	163811485	REFLECTOR-AMBER REFLEX ECE CERTIFIED	1
4	163709702	CONTROLLER BOX	1
5	163673876	HARNESS-FRONT BC1200 CUMMINS TIER 3	1
6	163673877	HARNESS REAR CUMMINS TIER3 BC1200	1
7	163709700	COVER CONTROLLER BOX	1
8	1865047	GROMMET-2.13IDX2.88OD-1/8GRV.	1
		Kit includes all items in Figure 1 parts list.	

UNIT OWNER COPY:
Insert in parts manual
for future reference.

Figure 2

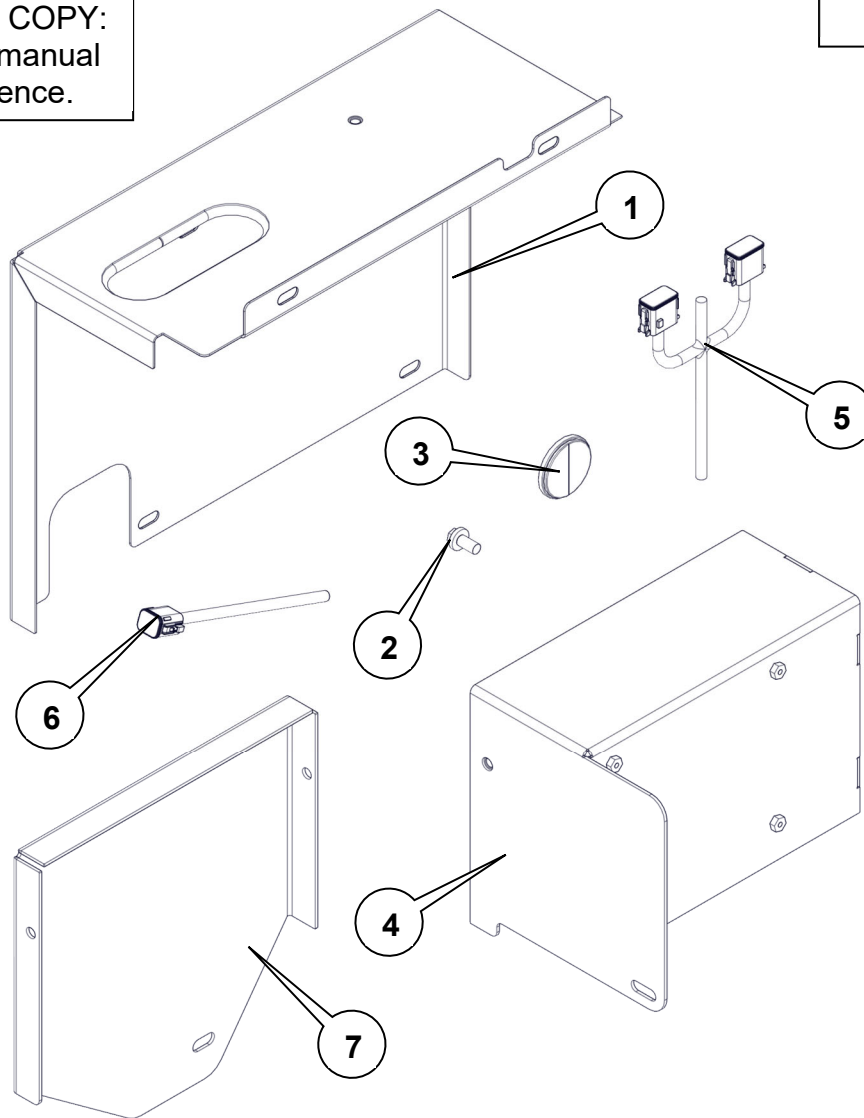


Figure 2 Parts List

REF. NO.	PART NO.	DESCRIPTION	IK02 QTY.
1	163709704	BATTERY COVER	1
2	507612020	SCREW-HFS,M10-1.50X20	8
3	308000149	REFLECTOR-ORANGE 61 MM	1
4	163709702	CONTROLLER BOX	1
5	163673874	HARNESS-FRONT BC1200 TIER 4	1
6	163673875	HARNESS-BC1200XL T4I REAR	1
7	163709700	COVER CONTROLLER BOX	1
		Kit includes all items in Figure 2 parts list.	

UNIT OWNER COPY:
Insert in parts manual
for future reference.

Figure 3

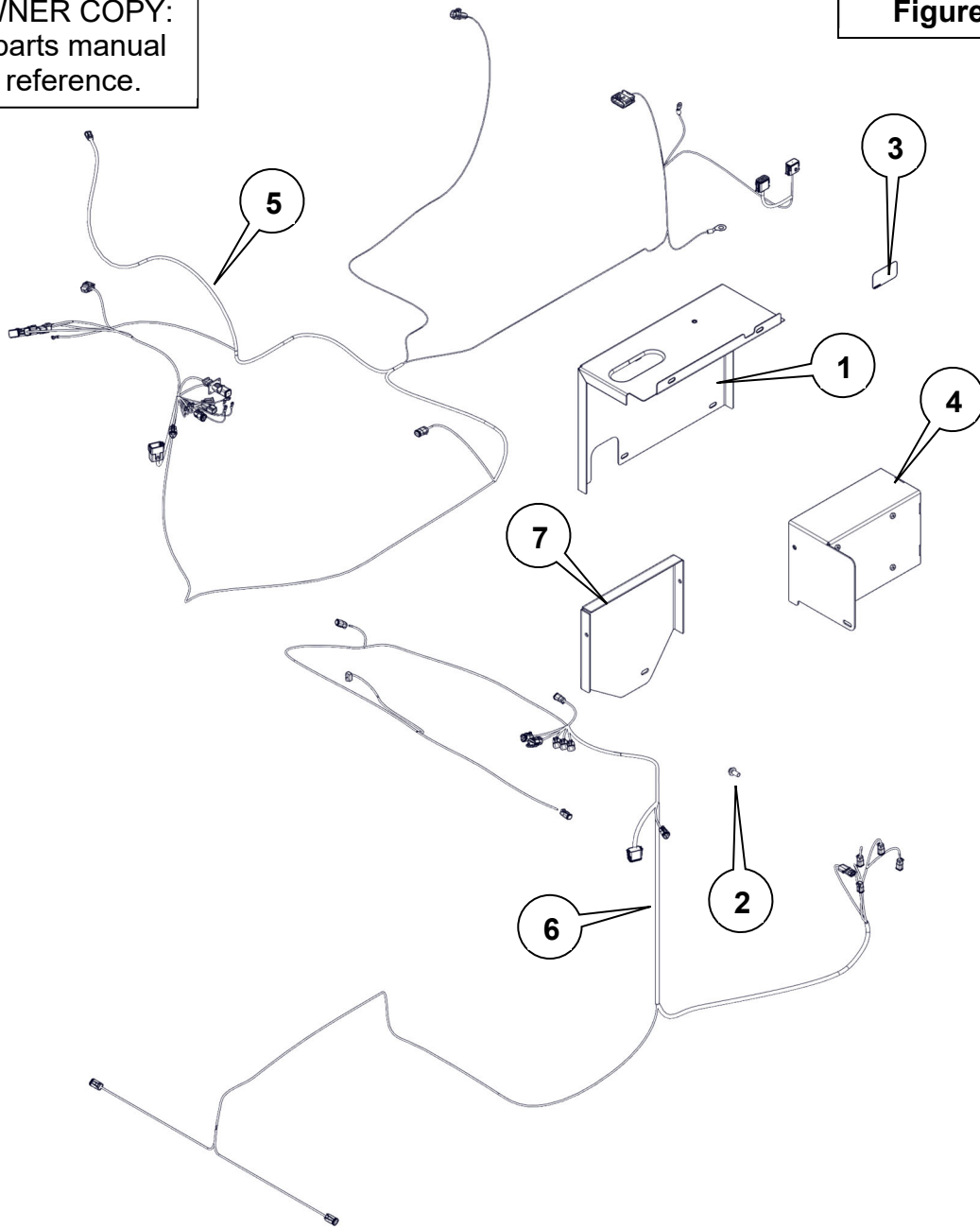


Figure 3 Parts List			
REF. NO.	PART NO.	DESCRIPTION	IK03 QTY.
1	163709704	BATTERY COVER	1
2	507612020	SCREW-HFS,M10-1.50X20	8
3	163733738	REFLECTOR AMBER	1
4	163709702	CONTROLLER BOX	1
5	163673872	HARNESS-FRONT BC1200 GAS	1
6	163673873	HARNESS-REAR BC1200 GAS	1
7	163709700	COVER CONTROLLER BOX	1
		Kit includes all items in Figure 3 parts list.	